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NFPA Economics Monthly

An Economics Bulletin of the Forest Products Industry

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THE NFPA FORECAST: FEW ECONOMIC SURPRISES

There is almost no need to point out the obvious: the consistent growth of the U.S. economy has worked its way through the entire service sector of the economy but has left behind a number of basic manufacturing industries. Among those industries that have not shared in this economic success is the wood products industry, and especially the softwood lumber industry.

The Economy in General is Holding Its Own, But for How Long?

Many economic indicators have been remarkably constant during the past several months. During the third quarter, real growth in the Gross National Product measured a modest gain of 2.8 percent. The Federal Reserve discount rate has remained at 7.5 percent since May. In the housing market, starts have hovered at a rate around 1.7 to 1.8 million for the first nine months, while sales for the first six months were at a seasonally adjusted annual rate of 694,000--the highest rate since 1979. Unemployment has remained constant, and the economy has been creating new jobs at an average rate of 268,600 per month.

Consumer spending, responsible for the third quarter gains in the GNP, is keeping the economy afloat but probably cannot maintain such a high level for very long. As a corollary to high consumer expenditures, consumer credit to finance those expenditures is soaring, while the U.S. savings rate is at an historic low. Generally, these phenomena do not bode well for the next few quarters, although no dramatic downturns are in store. A persistent dark cloud on the economic horizon are unreasonably high real interest rates; the spread between inflation and nominal interest rates is in the range of six to eight points.

A particularly bright spot is inflation, but even that is not all silver lining. Inflation, now running at an annual rate below 4 percent, was originally kept in check by an aggressively conservative Federal Reserve policy, but has since been controlled by an overvalued dollar. Imports encouraged by an overvalued dollar create competition, which tempers price increases. The immense competition caused by imports has kept inflation at its lowest point in 18 years, and has resulted in disinflation in a number of basic commodity groups.

For wood products, the disinflation is causing sluggish performance. The Department of Commerce reported that the total value of wood product shipments in 1983 was $49.2 billion. NFPA estimates that this changed little in 1984 and, when statistics are compiled for 1985, will show a slight decrease. Adjusted for inflation, the value of the industry's product shipments are down by 27 percent when compared with 1979 (Figure 1). The value of softwood lumber shipments, in particular, will show a decline because volume is off 4.1 percent and average prices are down. Softwood lumber's poor performance has significant impact on the industry as a whole, because softwood lumber accounts for 16

MONTHLY STATISTICAL HIGHLIGHTS

New orders for softwood lumber were up 7.9 percent in August, while inventories dropped slightly (0.1 percent).

During the first nine months of 1985, softwood lumber consumption was up 1.4 percent over the same period last year; hardwood lumber consumption was up 9.9 percent.

Softwood log exports are running 13.8 percent ahead of last year; Exports of all other wood products are down.

Shipments of mobile homes through August were reported at 193,600 units, down 5.4 percent from last year.

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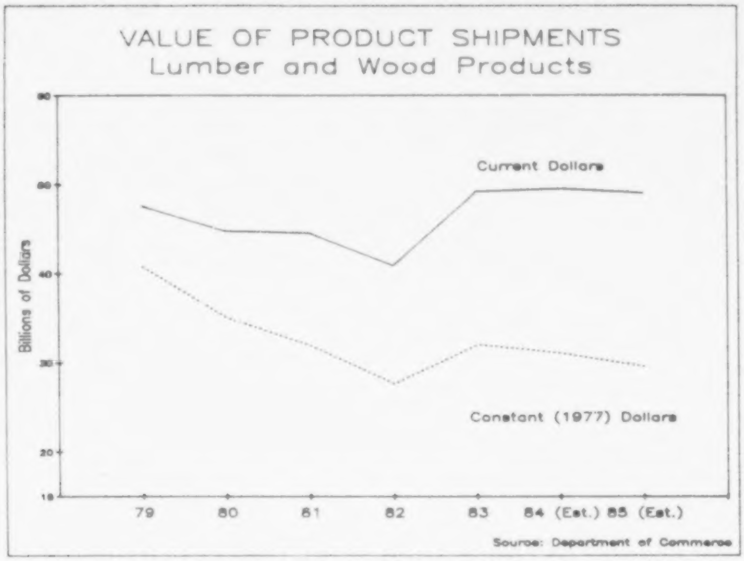
Figure 1: In real terms, the value of industry shipments is losing ground.



Source: Department of Commerce

percent of industry shipments, the largest single product category.

Wood Products--Reaching Desperately for a Piece of the Action

A recap of the first 10 months of 1985 shows an industry still trying to grasp a piece of the economic recovery. Despite high production and consumption levels, earnings in wood products operations are sluggish at best. At worst, they have led to layoffs and mill closings. Trends bearing on the condition of the forest products industry include:

- Increases of softwood lumber imports from Canada, up approximately 14 percent; the Canadians now claim 33.4 percent of U.S. consumption, compared with 30.8 percent in 1984.
- Record consumption of softwood lumber and structural panels without any upward movement in average prices; the 1985 average Random Lengths Composite was $197 at the end of October, down from an average of $199 in 1984.
- Low corporate profits, compounded in the forest industries by lower performing paper operations; paper and paperboard production are down 1.7 and 3.8 percent, respectively.
- Cost-cutting by all producers; layoffs and mill closings by major companies.
- Small and medium-sized companies accounting for a greater share of total production.

Poor Economic Performance Forces Changes in the Industry

The 1982 recession and the ensuing period of depressed earnings has led to some major changes in the industry, evidenced by a number of events and circumstances during the past year. For example, among publicly traded forest products companies, there has been an increase in the number of greenmail attempts and successful mergers. With a diversity of assets (including large timberland holdings), and low stock prices attributable to poor earnings performance, forest products companies are attractive targets. Among the most publicized changes: St Regis merged into Champion International Corporation; control of Crown Zellerbach taken over by Sir James Goldsmith; and Pacific Lumber Company purchased by Maxxam Group, Inc. Potlatch Corporation also recently came under the gun of a prospective purchaser, and Santa Fe Industries announced that it would entertain offers for its Kirby Forest Products company.

Still other companies have taken internal actions to try to thwart any prospective takeover, or monetize assets. International Paper Company, for example, formed a limited partnership earlier this year to own and operate a portion of its timberland holdings. A large number of other individual mills of large and small companies have changed hands.

Major companies have taken moves to consolidate through divestiture or closing of operations. In a sense, large producers have taken on the role of the "marginal producer", a characterization once reserved for the small local sawmills in the industry. In 1983, the top 50 companies in the industry produced 63 percent of the total U.S. production. In 1984, that percentage was down to 54 percent. By the time the 1985 numbers are in, the top 50 producers may account for less than half percent of total U.S. production.

Several other factors will force further industry changes in the future. The effects of import competition is one such factor. As reported previously, imports have taken a stronghold in the U.S. wood products marketplace. Imports of softwood lumber from Canada now account for 33 percent of consumption and have been increasing yearly. The Canadian industry is heavily geared toward export to the U.S. and has been successfully capitalizing on every opportunity to increase market share. This is having a profound effect on the U.S. industry.

Recent developments in the public timber-dependent western U.S. are setting the stage for some additional problems. Because competition for federally owned timber is severe, and may worsen if the timber sale level declines, producers face an awesome dilemma. In some western regions, prices bid for national forest timber are creeping up once again, but product prices have taken a dive. The old saw "chasing low prices with more volume" applies. Producers are desperately trying to hold a position in the marketplace, but are being squeezed between high timber costs and low product prices.

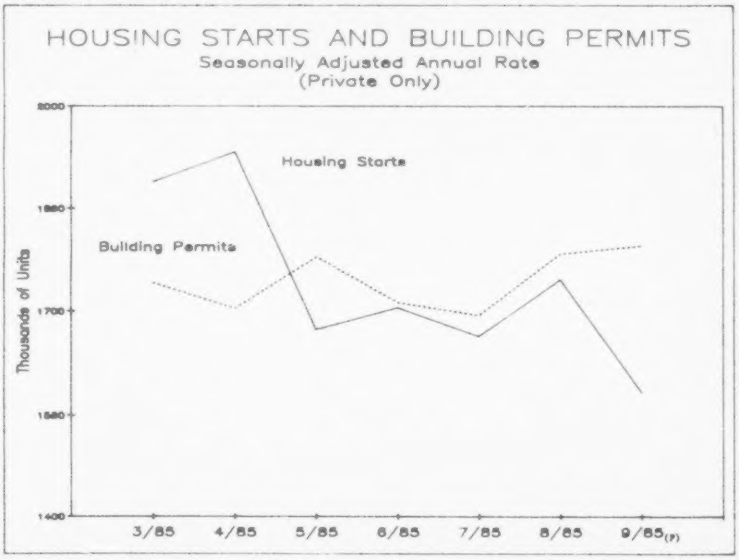
On the Demand Side--Order Files are Healthy; Housing Strong

The outlook for housing reveals that cycles have now become less severe. Deregulation in the banking industry has produced more options for mortgage finance. Adjusted rate mortgages and other less conventional financing mechanisms provide flexibility to the home buyer to deal with changing interest rates. As a consequence, housing no longer is experiencing the wide yearly swings as was seen in the past.

The median price of new homes has escalated less in 1985 than in past years. Now at $82,400 (August), prices for new homes have tempered, and they have become, on average, bigger in size than they were just a few years ago. Having dipped to a low of 1,520 square feet in 1982, new homes in 1984 were constructed at an average floor size of 1,605 square feet.

During the past five months, the rate of permits issued for new housing has been higher than the rate of starts. This is the first time permits have exceeded starts over such a long period of time (Figure 2). Housing economists point to several possible reasons, but

Figure 2: Housing permits have exceeded starts for five months running.



still remain somewhat perplexed. Deadlines imposed for major changes in building codes have been cited as a possible reason; apparently, changes in zoning and/or codes has stimulated issuance of permits in high housing start states such as New York and California. A high level of permits might simply be a statistical fluke, and therefore without much significance. On the other hand, the high rate of permits could mean housing starts will jump in the next few months, and during the first quarter of 1986. Even if this is the case, 1986 will see a moderation of starts overall.

The NFPA forecast looks for a decline in housing starts of seven to ten percent. The elevated use of consumer credit in 1985 may have "tapped out" the homebuyer and the pent-up demand created by the recession of 1982 has cleared. In addition, new household formations are expected to decline next year.

Non-residential construction will have experienced a record level in 1985, at an estimated $64.9 billion (1977 dollars), up 11 percent over last year. However, most economists believe high vacancy rates in office and hotel buildings in most areas of the country will lead to at least a moderate reduction of construction activity next year.

The Forecast in Brief

The three pending political/legislative issues affecting the economy are: deficit reduction, tax changes, and trade. Action on any one or more of these issues will influence the economy during 1986. Absent any legislative or administrative initiatives, the economy will continue to perform at a modest level, sluggish in a number of sectors including wood products. Next year will likely see slower growth, on the order of a 2 percent change in real GNP, and a moderation in housing starts down to the 1.65 million level. Wood products consumption should reflect this reduced level of housing demand.

Any improvement in company performance will come as a result of cost-cutting and consolidation. Imports will remain a major factor on price levels. The modest decline in the value of the dollar is not likely to significantly improve the export market.

THE NFPA FORECAST

Indicators

	1984	1985 (Est.)	1986 Forecast
Single-family Housing Starts (000)	1084.2	1121.0	1040.0
Multi-unit Housing Starts (000)	671.6	659.0	610.0
Mobile Home Shipments (000)	295.2	283.0	285.0
Other Construction (Billion 1977 $)	129.6	137.0	135.0
Industrial Prod. Index (1967 = 100)	163.3	165.2	166.0
Furniture & Fixtures Index (1967 = 100)	190.2	190.0	190

PRODUCTION AND TRADE

	Softwood Lumber (Bil BF)	Hardwood Lumber (Bil BF)[1]	Structural Panels (Bil SF)	Particleboard & MDF (Bil SF)
1984 U.S. CONSUMPTION	42.9	6.2	21.2	4.4
-imports	13.2	0.3	-	0.5
+exports	1.6	0.5	0.4	0.1
=SHIPMENTS	31.3	6.4	21.6	4.0
±inventory change	0.2	0.1	-	0.2
=PRODUCTION	31.1	6.3	21.6	3.8
1985 U.S. CONSUMPTION (Est.)	43.2	6.7	21.6	4.4
-imports	15.0	0.3	-	0.6
+exports	1.5	0.4	0.3	0.1
=SHIPMENTS	29.7	6.8	21.9	3.9
±inventory change	0.2	0.2	-	-
=PRODUCTION	29.5	6.6	21.9	3.9
1986 FORECAST				
U.S. CONSUMPTION	41.9	6.5	21.5	4.0
-imports	15.5	0.4	-	0.6
+exports	1.5	0.4	0.3	0.1
=SHIPMENTS	27.9	6.5	21.8	3.5
±inventory change	0.1	0.1	-	-
=PRODUCTION	27.8	6.6	21.8	3.5

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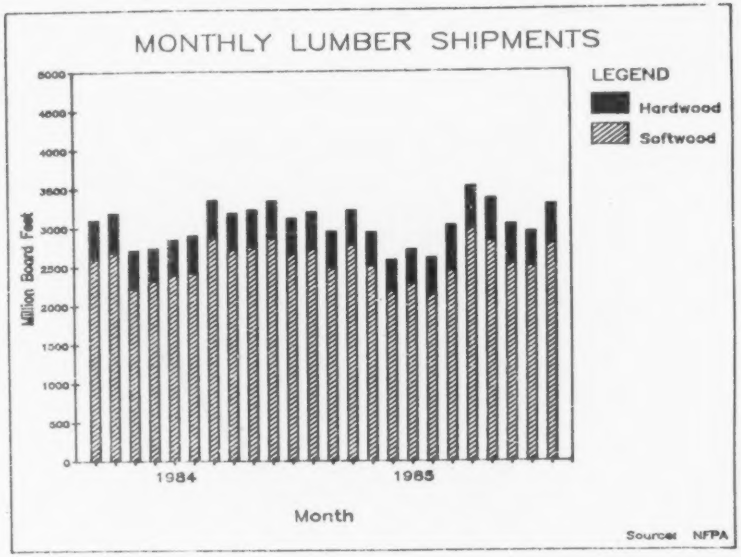
[1] These data reflect revisions in NFPA's hardwood lumber data for 1984.

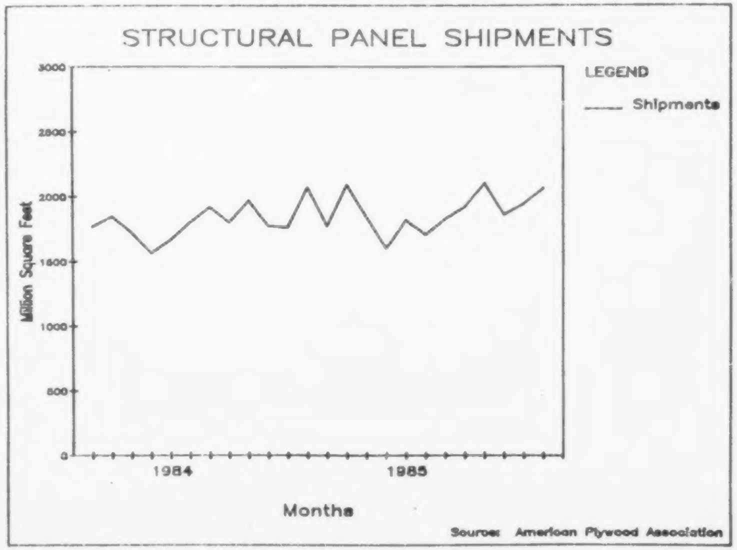
ECONOMICS MONTHLY
October, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	AUGUST 1985			AUGUST 31, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	920	892	958	640	1,868
Douglas Fir Region	642	656	596	495	883
Western Pine Region	921	939	892	456	1,290
California Redwood Region	166	169	165	112	348
Other Softwoods	134	134	132	234	298
TOTAL SOFTWOODS	2,783	2,790	2,743	1,937	4,687
% Change - July 1985	8.8%	11.6%	7.9%	-2.4%	-0.1%
% Change - August 1984	4.5%	2.3%	7.7%	4.0%	-3.6%
HARDWOOD LUMBER					
Southern Hardwood Region	234	229	229	241	843
Appalachian Hardwood Reg.	35	34	34	*	*
Other Hardwoods	247	241	241	172	1,025
TOTAL HARDWOODS	516	504	504	413	1,868
% Change - July 1985	5.5%	13.3%	4.3%	0.0%	0.6%
% Change - August 1984	0.2%	6.3%	16.1%	11.0%	13.1%
TOTAL LUMBER	3,299	3,294	3,247	2,350	6,555
% Change - July 1985	8.3%	11.8%	7.3%	-2.0%	0.1%
% Change - August 1984	3.8%	2.9%	8.9%	5.1%	0.6%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	11,104	NA	4,628	6,061
Maple Flooring (Sq. Ft.)	1,051	1,102	1,002	3,469	1,765
STRUCTURAL PANELS	2,037,698	2,063,785	1,906,367	370,045	363,261
% Change - July 1985	4.2%	6.1%	-2.2%	-29.8%	9.6%
% Change - August 1984	-1.5%	-0.3%	0.6%	-22.6%	20.3%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

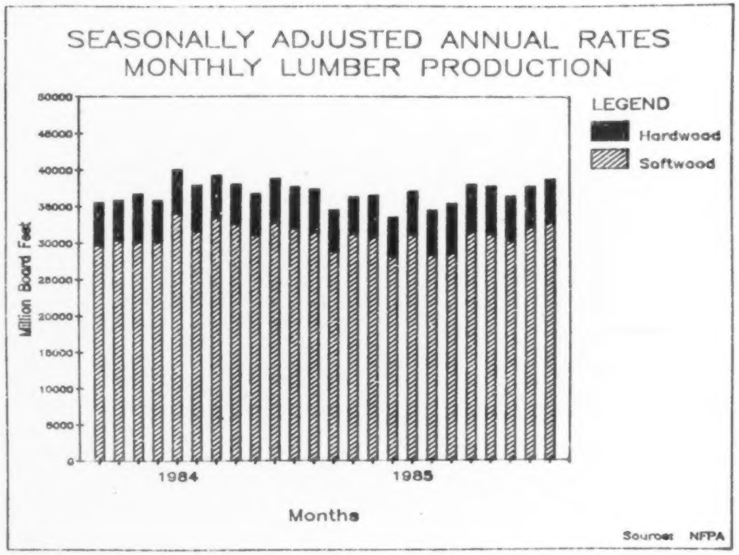
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	8 mos. '85	8 mos. '84	8 mos. '85	8 mos. '84	8 mos. '85	8 mos. '84
			(Million Board Feet)			
TOTAL LUMBER	24,750	-3.2%	24,544	-2.6%	24,644	-0.3%
TOTAL SOFTWOOD	20,599	-4.9%	20,512	-4.1%	20,580	-1.9%
TOTAL HARDWOOD	4,151	6.1%	4,032	6.0%	4,064	8.6%

SEASONALLY ADJUSTED ANNUAL RATES

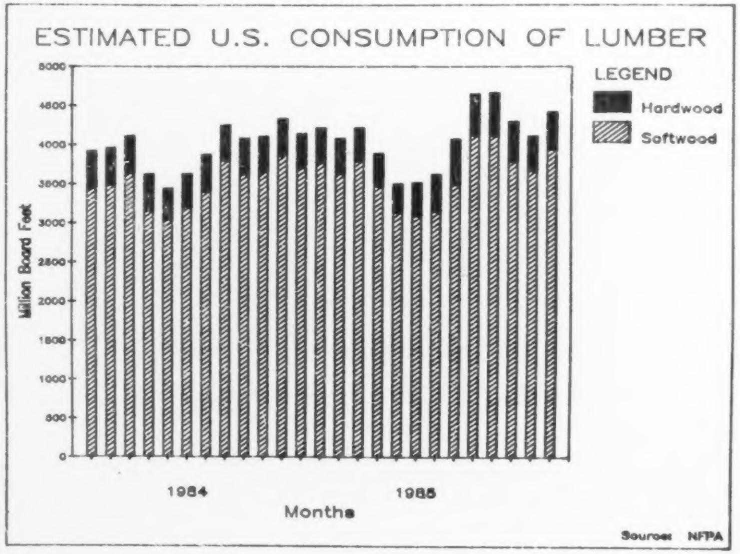
	PRODUCTION			SHIPMENTS		
		---% Change From---			---% Change From---	
LUMBER REGION	Aug. '85	July '85	Aug. '84	Aug. '85	July '85	Aug. '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	10,920	-2.0%	-1.0%	10,567	-0.7%	-2.9%
Douglas Fir	7,346	-2.7%	-4.3%	7,673	6.5%	-11.4%
Western Pine	10,825	10.8%	16.9%	10,511	15.8%	18.1%
Calif. Redwood	1,928	2.0%	12.9%	1,930	6.8%	19.9%
Other Softwoods	1,546	2.1%	4.7%	1,537	4.6%	2.3%
TOTAL SOFTWOODS	32,765	2.1%	4.5%	32,217	6.7%	2.1%
TOTAL HARDWOODS	5,954	4.2%	0.2%	5,866	5.2%	6.3%
TOTAL LUMBER	38,718	2.5%	3.8%	38,083	6.4%	2.7%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Aug. '85	July '85	Aug. '84	8 mos. '85	8 mos. '84
		(Million Board Feet)			
Total Consumption	4,424	7.5%	5.0%	33,400	2.3%
Softwood Consumption	3,942	7.4%	4.7%	29,384	1.4%
Hardwood Consumption	482	8.3%	7.5%	4,016	9.9%



Source: NFPA

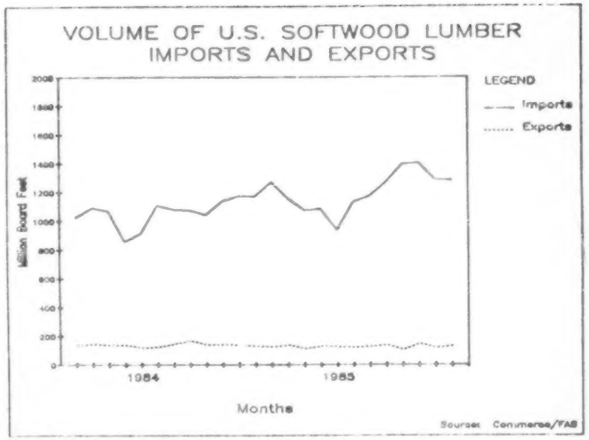


Source: NFPA

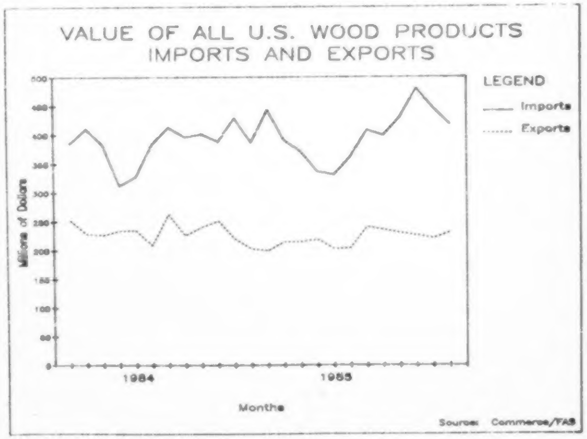
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE (000$)			
		Aug. '85	8 mo. 1985	% Change From July'85	% Change From 8 mo. 1984	Aug. '85	8 mo. 1985	% Change From July'85	% Change From 8 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	130.8	1,007.8	11.6%	-8.0%	42,816	331,615	10.9%	-10.0%
To Canada	MMBF	28.6	201.5	7.5%	-20.0%	7,296	50,748	13.6%	-13.8%
SOFTWOOD LOGS	MMBF	321.8	2,503.4	-1.0%	13.8%	102,345	789,052	-2.7%	8.2%
SOFTWOOD PLYWOOD	MMSF 3/8"	12.6	200.3	-25.8%	-28.6%	3,748	47,729	-10.7%	-27.2%
HARDWOOD LUMBER	MMBF	35.9	264.0	27.3%	-18.6%	22,568	164,566	26.3%	-14.6%
HARDWOOD LOGS	MMBF	4.6	82.9	-60.3%	-39.6%	3,149	66,061	-55.9%	-14.0%
HARDWOOD VENEER	MMSFsurf	51.5	500.3	-22.7%	-29.9%	4,012	39,954	-21.3%	-31.1%
PARTICLEBOARD	MMSF 3/4"	10.2	71.3	35.1%	-6.5%	1,831	14,267	6.6%	-25.3%
ALL OTHER		NA	NA	NA	NA	45,317	318,380	21.1%	0.9%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	231,109	1,785,441	5.0%	-3.1%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,282.6	9,879.6	-0.3%	13.7%	263,746	1,954,913	-2.5%	9.2%
From Canada	MMBF	1,278.4	9,831.5	-0.3%	13.5%	262,521	1,944,920	-2.4%	9.2%
SOFTWOOD LOGS	MMBF	2.9	38.8	304.3%	-51.7%	601	10,541	115.4%	8.5%
SOFTWOOD PLYWOOD	MMSF 3/8"	5.7	54.3	-2.9%	15.2%	1,152	13,294	-39.8%	27.4%
HARDWOOD LUMBER	MMBF	24.2	254.6	-15.2%	15.0%	11,793	126,403	-27.2%	7.3%
HARDWOOD LOGS	MMBF	6.0	18.0	86.2%	-3.3%	322	2,520	-22.2%	-14.7%
HARDWOOD VENEER	MMSFsurf	125.3	938.9	-15.5%	-14.8%	9,330	68,198	0.9%	-26.4%
HARDWOOD PLYWOOD	MMSF 3/8"	200.8	2,328.5	-31.3%	9.1%	24,077	293,008	-31.4%	-3.9%
HARDBOARD	MMSFsurf	60.4	479.1	-6.8%	155.1%	3,719	34,195	-9.1%	2.5%
PARTICLEBOARD	MMSF 3/4"	124,375.8	986,502.2	-0.7%	10.0%	11,972	88,725	5.1%	5.4%
ALL OTHER		NA	NA	NA	NA	90,992	678,764	-5.2%	0.3%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	417,704	3,273,127	-6.3%	4.7%

Note: Volume total is not possible because the products are in different units of measure.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

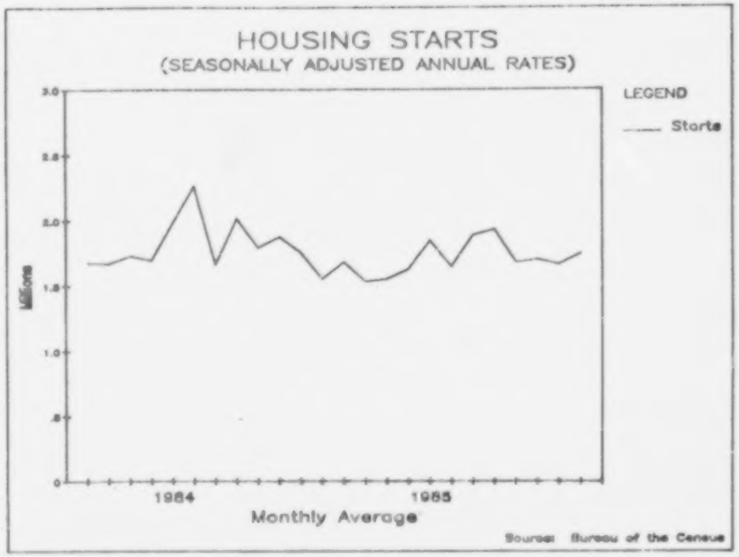
Source: Commerce/FAS

CONSTRUCTION AND HOUSING STATISTICS

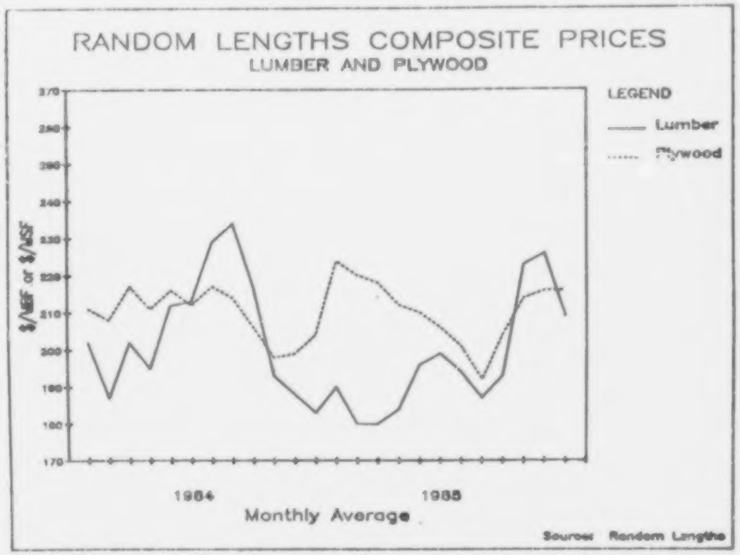
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	--% Change From--		Latest Period Available	% Change From
	Aug. '85	July '85	Aug. '84	8 mo. '85	8 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	32.3	4.2%	9.4%	220.5	9.9%
Private	25.6	4.0%	8.4%	181.0	9.4%
Residential	14.0	4.9%	9.3%	96.1	6.0%
Nonresidential & Other	11.6	3.0%	7.5%	84.9	13.6%
Public	6.7	5.0%	12.9%	39.5	12.8%
	Aug. '85	July '85	Aug. '84	8 mo. '85	8 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	161.6	0.4%	8.1%	1,323.7	-3.9%
New Private Starts	161.2	0.3%	8.6%	1,321.7	-3.7%
Seas. Adj. Annual Rate	1746	5.0%	3.7%		
One-Family Housing Starts	101.0	-4.4%	11.6%	828.4	-2.5%
Proportion of Total	62.5%			62.6%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	27,700	14.0%	-7.7%	193,600	-5.4%

EMPLOYMENT STATISTICS

		---% Change From---	
	Aug. '85	July '85	Aug. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	97,977	0.3%	3.3%
All Manufacturing Industries	19,362	0.1%	-1.3%
Lumber and Wood Products	700	0.4%	-0.4%
Furniture and Fixtures	499	1.0%	3.7%



Source: Bureau of the Census



Source: Random Lengths

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NFPA Economics Monthly

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Volume I Number 9 November, 1985

STOCK PRICES OF WOOD PRODUCTS COMPANIES

The N.Y. Stock Exchange has made headlines lately as a result of an extended rally. Spurred by lower interest rates and a general optimism about the economy, the Dow Jones and Standard and Poor's indices are reaching record levels, and some analysts believe that the market is poised to rise still further.

The value of publicly traded stock is frequently used as an indicator of performance in a given industry. Hence, a look at prices of publicly traded stock of forest products companies offers some insight into how they are faring relative to other sectors. With this in mind, NFPA has been tracking the stock prices of eighteen companies primarily engaged in the manufacture of solid wood products.

Figure 1 displays the NFPA stock index plotted with the S&P 500 since 1980. The NFPA index paralleled the S&P stocks until mid 1982, but then was outperformed by the S&P 500. By and large, the forest products sector has not kept pace with the overall market. In recent weeks, the market as a whole has been rising at a faster rate than the companies grouped in the NFPA sample.

Many events have affected performance and stock valuations in the forest products industry. The solid wood industry has exhibited sluggish earnings and has yet to experience its share of the post-recession recovery. Prices for softwood lumber, in particular, have remained depressed despite high demand. Imports are affecting the domestic industry by providing unprecedented competition. And although inflation has diminished, real interest rates have remained high. The wood products industry is an interest-sensitive industry, although poor performance cannot be attributed to this factor. Competition is severe and the abundant supply of lumber resulted in soft markets.

It is important to note that only a few wood products companies have been included in this NFPA index. In fact, most of the 20,000+ manufacturers of wood products are not publicly held and do not issue publicly traded stocks. The production represented by the companies in NFPA's sample represents less than 30 percent of U.S. production of softwood lumber.

Because only a few companies are included in the sample, any dramatic swing experienced by one company will effect the overall index. This was the case, for example, when Pacific Lumber stock rose as a consequence of a takeover bid in early October. Finally, this brief analysis is presented only to highlight an indicator of the financial health of the wood products industry. No endorsement or recommendation on the purchase or sale of any stocks is intended or implied.

MONTHLY STATISTICAL HIGHLIGHTS

Housing starts in September were at an annual rate of 1.59 million units, lower than expected given declining interest rates.

Softwood lumber production and shipments were down slightly in September from August, 3.3 percent and 4.2 percent respectively.

Hardwood lumber production and shipments were also down, 8.8 percent and 9.4 percent respectively.

During the first nine months of 1985, imports of softwood lumber from Canada amounted to 11,091 million board feet, up 11.8 percent over the same period last year.

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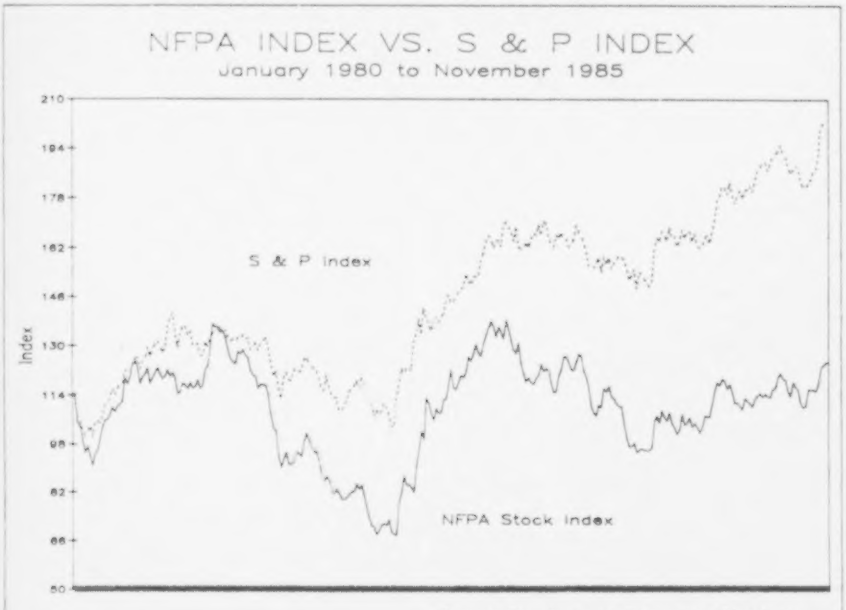
Figure 1: The NFPA stock index shows stocks of wood products companies lagging Standard and Poor's 500.



Source: Standard and Poors; Wall Street Journal

COMPANIES INCLUDED IN NFPA SIC 24 INDEX

Boise Cascade Corporation
Champion International Corporation
Crown Zellerbach Corporation
Dallas Corporation*
Georgia-Pacific Corporation
Longview Fibre Company
Louisiana-Pacific Corporation
Mobile Home Industries, Inc.
National Homes Corporation
Pacific Lumber Company
Pope & Talbot, Inc.
Potlatch Corporation
Redman Industries, Inc.
Southwest Forest Industries
Triangle Pacific Corporation
Union Camp Corporation
Weyerhauser Company
Willamette Industries, Inc.

*Formerly the Overhead Door Corporation

STATE FOCUS: MAINE TIMBER INVENTORY INDUSTRY CANVASS IDENTIFIES TRENDS

The Forest Service conducts inventories of each timber producing state in seven to ten year cycles. The U.S. Forest Service conducted a timber inventory of the state of Maine in 1981. Recently, the Forest Service also published an assessment of the state's timber industry based on a canvass done as part of the 1981 survey. A summary follows.

Lumbering in the United States owes much of its heritage to the state of Maine, whose colonial shipbuilding industry required Maine's tall, straight white pine timbers for mast making. Today, Maine is still the most forested state, with 90 percent of its area in commercial forestland. It is a state with a large percentage of its forestland in industrial ownership. Consequently, the timber and paper based industries have a major stake in the state. They are one of its largest employer.

The forest resource is economically important to the state. The timber-based industries employ approximately 31,000 people and account for approximately $662 million in wages and salaries. The forests in Maine are also relied upon for their recreational amenities.

The Resource: Privately Owned; Fir and Spruce Predominates

The forestland area of the state covers 17.6 million acres with 17.1 million acres classified as commercial timberland. A broad range of tree species grow in the state, but spruce-fir forest types predominate. Ownership of Maine's timberland is unique in that a system of undivided ownership exists for large tracts in the northern townships. Large groups of independent owners share in the advantages and disadvantages of owning and managing this land. Private ownership accounts for 96 percent of the timberland. The state also has the highest proportion of forest industry land ownership with 47 percent of the total timberland, a little over 8 million acres.

According to the 1981 Forest Service statistics, the timber base consists of a total growing stock volume of 22.8 billion cubic feet--both softwoods and hardwoods. This represented an increase of 7 percent in the total growing stock since it was last measured a decade earlier. However, the volume of softwood growing stock has remained unchanged since 1971 at 14.8 billion cubic feet. Hardwoods have accounted for the increase. The volume of aspen increased 77 percent since the previous survey. Maine has had to deal with a persistent spruce budworm infestation which has caused a sizeable decline in the growth of balsam fir and to a lesser extent, spruce. Fir declined by 20 percent between 1970 and 1981.

Looking only at sawtimber--trees of 6 inch diameter or greater suitable for sawlogs--there was an increase since 1971. Average sawtimber volume in the state was 2,795 board feet per acre, up 24 percent.

The Annual Harvest: More to Pulpwood Than Sawlogs

According to the Forest Service, Maine's total 1981 timber harvest amounted to nearly 439 million cubic feet (Figure 2). Softwoods accounted for 71 percent of this total, with two-thirds of the harvest going towards pulpwood as opposed to sawlogs. The harvest has increased since two earlier surveys, in 1958 and 1970. Between 1958 and 1970, the annual harvest increased by 112 million cubic feet, and has increased 49 million cubic feet since 1970.

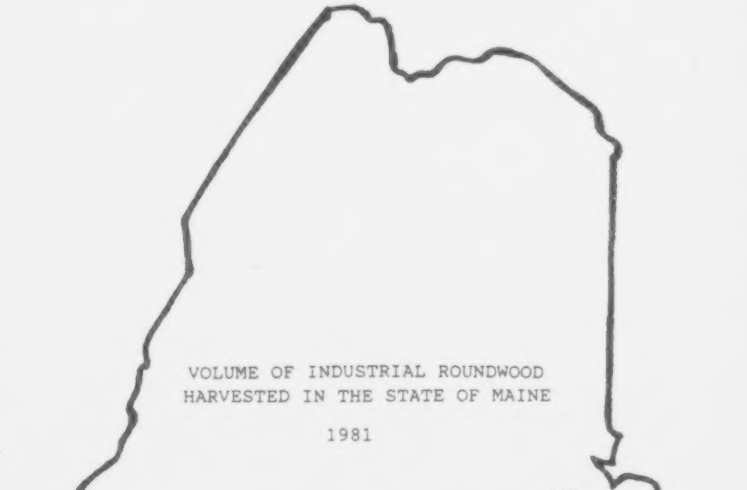
During the 1970 to 1981 period, output of softwood products increased by 9 percent, from 284 million cubic feet to 310 million cubic feet. Of the softwood removals, sawlogs amounted to 117 million cubic feet (731 million board feet), or 38 percent of the total. Pulpwood made up 60 percent, with the balance of the softwood going to veneer logs, fence posts and miscellaneous products. The softwood sawlog removals were 40 percent higher in 1981 than in 1970. Softwood accounted for 92 percent of the total sawlog harvest. Spruce, white pine and balsam fir were the three prevalent species of the timber harvested as sawlogs. Softwood veneer logs in 1981 accounted for 1.2 million cubic feet of the harvest. They were insignificant ten years earlier.

In recent years the majority of Maine's timber harvests have been used to supply the woodpulp industry and its associated paper industry. Hardwoods harvested for pulpwood have experienced a rapid rise, and have exceeded the increase in softwoods harvested for that purpose. In fact, the softwood pulpwood harvest has declined since 1970, even though total pulpwood removals are up. That difference has been made up with hardwood, now used increasingly as a raw material source for pulp manufacture.

The Maine Industry: Small, Custom Sawmills Dot the Maine Landscape

In 1981, the Forest Service identified 368 sawmills producing softwood and/or hardwood lumber. This

Figure 2: Most of Maine's harvested timber (66%) consists of pulpwood to supply Maine's pulp and paper industry.



VOLUME OF INDUSTRIAL ROUNDWOOD
HARVESTED IN THE STATE OF MAINE

1981

	Softwood	Hardwood	All Species
	(Thousand Cubic Feet)		
Sawlogs	117,007	9,581	126,588
Pulpwood	186,879	103,616	290,495
Turnery Bolts	18	6,882	6,900
Veneer Logs, Bolts	1,241	4,636	5,877
Cabin Logs	316	--	316
Fence Stock	2,985	23	3,008
Miscellaneous	1,960	3,538	5,498
TOTAL	310,406	128,276	438,682

Source: Forest Service, USDA, "Maine Timber Industries-- A Periodic Assessment of Timber Output" was up from 235 sawmills in 1970. The vast majority of the producing mills--209 to be exact--do custom sawing. Of those which produce lumber, most are small operations; 75 percent produce less than one million board feet per year. Maine has only 15 sawmills with a production capacity of more than 10 million board feet.

Sawlogs Exported Out of State--A Regional Issue

In 1981, 160.5 million board feet or one-fifth of the sawlog harvest in Maine was shipped out of the state. Canadian mills operating along the border in Quebec and New Brunswick are the destination for most of this timber (151.2 million board feet). Nearly 119 million board feet of sawlogs were shipped to Quebec alone. Canadians buy timber in Maine, haul it across the border, and ship back finished lumber. Thus producers in Maine must compete with Canadian buyers for the timber, and compete at the other end in the marketplace selling lumber. The export of logs to Canada, however, has declined since the mid-1970's when as much as 280 million board feet was shipped across the border. Regional producers are faced with severe competitive pressures.

In contrast, pulpwood is consumed mostly in state. Only 3 percent of the state's production is shipped out-of-state: half to Canada, half to other mills in New England. Maine "imports" approximately 11 percent of its pulpwood consumption from out-of-state.

Pulpwood: To Feed Maine's Important Paper Industry

Pulpwood production has risen by 23 percent since 1970, to 4.3 million cords per year. The state's consumption of pulpwood is higher than a decade ago, but woodpulp is now produced by fewer mills. Fourteen mills now consume 4.6 million cords of pulpwood and chips, 24 percent more than in 1970 when 17 mills operated. The daily pulping capacity of Maine's mills was estimated at 8,770 million oven dry tons in 1981.

Softwoods account for 64 percent of the pulpwood consumed in the state. The proportion of hardwoods in the pulpwood mix has increased dramatically as new technologies and changes in product mix have allowed greater utilization of the hardwood resource.

Other Industry Segments

A number of Maine mills manufacture veneer and other specialty wood products. About 30 million board feet of veneer logs and bolts were consumed by 8 mills in 1981. An additional 8.6 million board feet was harvested, but shipped out of state. Among the miscellaneous products produced are cabin logs, clothespins, cooperage, fencing, tool handles, shingles, and railroad ties. About 2 percent of the total lumber output was was consumed for these miscellaneous products in 1981, although 170 individual mills were in this segment.

Manufacturing Residues--Where Efficiency Wins For Producers

The volume of residues generated at Maine mills was measured at 62 million cubic feet in 1981. Fully 98 percent of this volume was used for product or energy. Bark accounted for 13.7 million cubic feet or 22 percent, the balance was wood chips, shavings, cuttings and sawdust amounting to 48.1 million cubic feet equivalent. In 1970, only 8.4 million cubic feet of wood industry residues were used as fuel; by 1981, this had nearly tripled to 24.7 million cubic feet. Several major energy projects at wood and paper processing plants contributed to the rise.

NOTES TO OUR READERS

Thank you for your responses to the readership survey mailed with last month's bulletin. Many excellent comments and suggestions were received. They will help us produce a better publication.

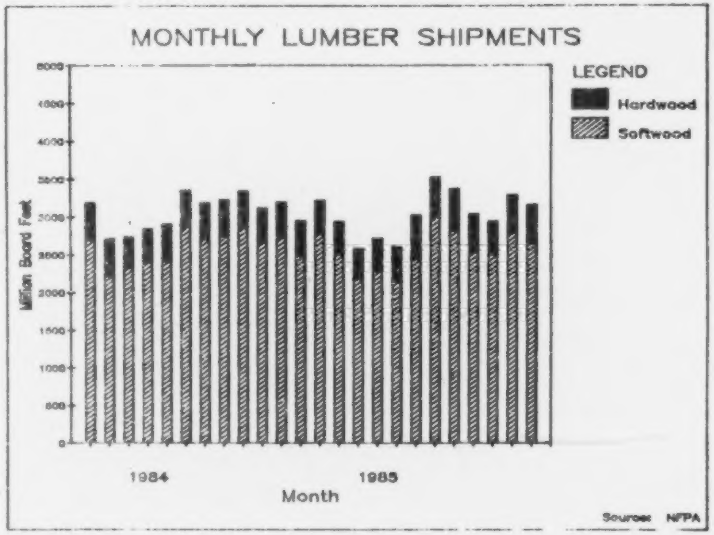
We are currently looking at ways to make improvements in the timeliness of the Bulletin. Since we compile data from a variety of government and private sources, our publication is oftentimes delayed.

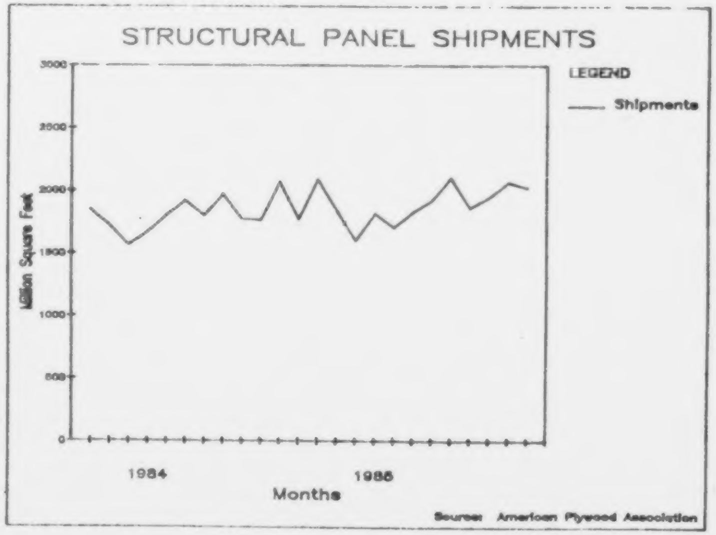
Please note that the Quarterly included with this issue of the Bulletin has revised softwood lumber numbers for 1983 and 1984, and revised hardwood numbers from 1976 forward. We periodically update the statistics as new or revised information is taken into account.

ECONOMICS MONTHLY
November, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	SEPTEMBER 1985			SEPTEMBER 30, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER	(Million Board Feet)				
Southern Pine Region	895	913	895	618	1,846
Douglas Fir Region	683	666	734	563	900
Western Pine Region	834	827	831	460	1,297
California Redwood Region	137	125	102	89	360
Other Softwoods	130	129	131	246	296
TOTAL SOFTWOODS	2,679	2,660	2,693	1,976	4,693
% Change - August 1985	-3.3%	-4.2%	-1.3%	1.7%	0.4%
% Change - September 1984	7.4%	7.6%	1.9%	-3.2%	-3.7%
HARDWOOD LUMBER					
Southern Hardwood Region	242	236	229	234	849
Appalachian Hardwood Reg.	50	48	47	*	*
Other Hardwoods	225	218	212	156	1,055
TOTAL HARDWOODS	517	502	488	390	1,904
% Change - August 1985	-8.8%	-9.4%	-11.9%	-3.5%	0.8%
% Change - September 1984	-1.5%	1.4%	1.0%	10.8%	12.6%
TOTAL LUMBER	3,196	3,162	3,181	2,366	6,603
% Change - August 1985	-4.3%	-5.1%	-3.1%	0.8%	0.5%
% Change - September 1984	5.9%	6.6%	1.8%	-1.1%	0.5%
* Included in Other Hardwoods					
FLOORING	(Thousand Feet)				
Oak Flooring (Bd. Ft.)	NA	10,971	NA	4,053	5,958
Maple Flooring (Sq. Ft.)	973	972	1,150	3,562	1,776
STRUCTURAL PANELS	1,977,057	2,020,835	2,208,830	868,545	316,850
% Change - August 1985	-3.0%	-2.1%	15.9%	134.7%	-12.8%
% Change - September 1984	11.5%	14.1%	18.5%	52.4%	5.9%





YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

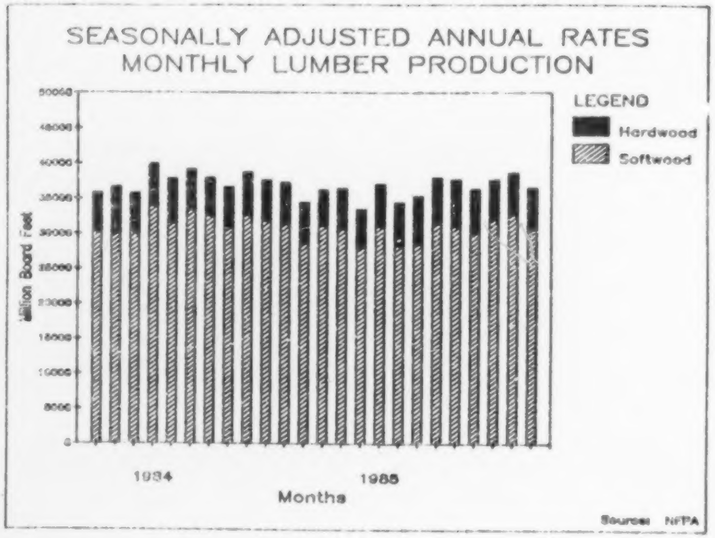
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	9 mos. '85	9 mos. '84	9 mos. '85	9 mos. '84	9 mos. '85	9 mos. '84
	(Million Board Feet)					
TOTAL LUMBER	28,174	-2.2%	27,926	-1.6%	28,043	-0.2%
TOTAL SOFTWOOD	23,166	-3.6%	23,061	-2.9%	23,160	-1.5%
TOTAL HARDWOOD	5,008	4.7%	4,865	5.1%	4,883	7.0%

SEASONALLY ADJUSTED ANNUAL RATES

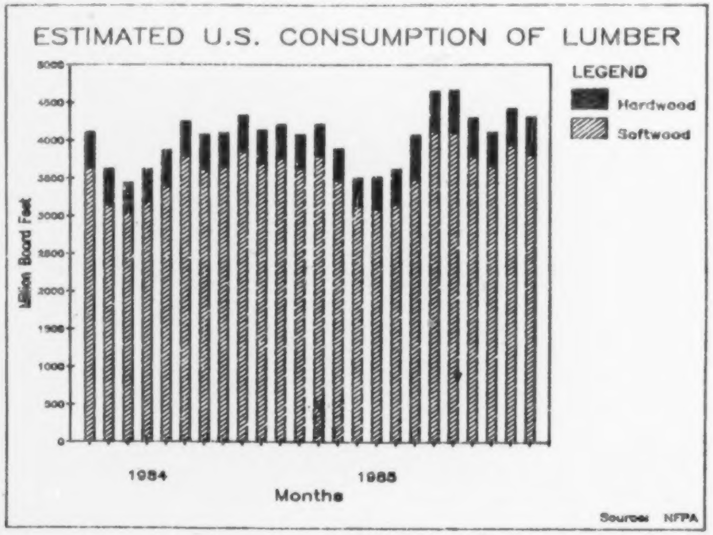
	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	Sept. '85	Aug. '85	Sept. '84	Sept. '85	Aug. '85	Sept. '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	10,762	.0%	4.1%	10,923	4.9%	5.2%
Douglas Fir	7,761	2.9%	2.7%	7,797	1.6%	7.8%
Western Pine	8,880	-18.0%	18.5%	8,790	-16.4%	13.3%
Calif. Redwood	1,799	-6.7%	-4.9%	1,669	-13.5%	-8.1%
Other Softwoods	1,470	-5.6%	7.4%	1,476	-4.7%	7.5%
TOTAL SOFTWOODS	30,672	-6.0%	7.0%	30,655	-4.4%	7.3%
TOTAL HARDWOODS	5,909	-9.7%	-1.5%	5,877	-8.9%	1.4%
TOTAL LUMBER	36,581	-6.6%	5.6%	36,532	-5.2%	6.3%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	Sept. '85	Aug. '85	Sept. '84	9 mos. '85	9 mos. '84
	(Million Board Feet)				
Total Consumption	4,315	-3.3%	5.3%	37,936	2.6%
Softwood Consumption	3,814	-2.9%	5.5%	33,086	1.8%
Hardwood Consumption	501	-6.1%	3.7%	4,850	8.5%


SEASONALLY ADJUSTED ANNUAL RATES
MONTHLY LUMBER PRODUCTION

Source: NFPA


ESTIMATED U.S. CONSUMPTION OF LUMBER

Source: NFPA

12/10/85

TABLE 1

ESTIMATED TOTAL REGIONAL LUMBER PRODUCTION, SHIPMENTS, AND NEW ORDERS

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	APPALACHIAN HARDWOOD	OTHER HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
PRODUCTION											
1975	6,967	7,134	8,445	1,690	1,475	25,711	2,761	1,109	2,002	5,872	31,583
1976	7,893	8,322	9,789	2,001	1,688	29,693	3,037	1,173	2,217	6,427	36,120
1977	8,879	8,796	10,309	2,000	1,753	31,737	3,073	1,211	2,417	6,701	38,438
1978	9,231	8,845	10,033	1,902	2,046	32,057	3,258	1,233	2,540	7,031	39,088
1979	9,283	8.427	9,780	1,818	2,124	31,432	3,462	1,263	2,589	7,314	38,746
1980	8,217	6,815	7,613	1,589	2,012	26,246	3,341	1,221	2,553	7,115	33,361
1981	8,415	6,270	7,147	1,452	1,392	24,676	3,374	1,237	1,641	6,252	30,928
1982	8,754	5,743	6,681	1,300	1,309	23,787	2,061	602	2,398	5,062	28,849
1983*											
1ST QUARTER	2,444	2,025	1,933	419	373	7,194	488	204	596	1,288	8,482
2ND QUARTER	2,658	2,094	2,187	405	402	7,746	500	184	590	1,274	9,020
3RD QUARTER	2,636	1,938	2,262	382	395	7,613	632	207	725	1,564	9,177
4TH QUARTER	2,443	1,877	2,106	374	373	7,173	625	190	703	1,518	8,691
TOTAL YEAR	10,181	7,934	8,488	1,580	1,543	29,726	2,245	785	2,614	5,644	35,370
1984*											
1ST QUARTER	2,620	2,337	2,252	435	391	8,035	660	220	677	1,557	9,592
2ND QUARTER	2,787	2,264	2,429	444	404	8,328	665	245	701	1,611	9,939
3RD QUARTER	2,692	1,985	2,213	407	373	7,670	714	199	702	1,615	9,285
4TH QUARTER	2,575	1,743	2,098	378	347	7,141	662	147	624	1,433	8,574
TOTAL YEAR	10,674	8,329	8,992	1,664	1,515	31,174	2,701	811	2,704	6,216	37,390
1985*											
1ST QUARTER	2,481	1,862	1,990	451	346	7,130	700	211	701	1,612	8,742
2ND QUARTER	2,909	1,906	2,382	454	391	8,042	770	239	777	1,786	9,828
3RD QUARTER	2,716	1,927	2,514	448	389	7,994	724	185	701	1,610	9,604
4TH QUARTER											
TOTAL YEAR	8,106	5,695	6,886	1,353	1,126	23,166	2,194	635	2,179	5,008	28.174
SHIPMENTS											
1975	7,142	7,196	8,519	1,625	1,488	25,970	2,727	1,095	1,977	5,799	31,769
1976	7,782	8,293	9,744	2,044	1,679	29,542	3,032	1,171	2,214	6,417	35,959
1977	8,932	8,781	10,295	2,075	1,759	31,842	3,114	1,225	2,450	6,789	38,631
1978	9,226	8,906	10,067	1,884	2,051	32,134	3,248	1,230	2,530	7,008	39,142
1979	9,255	8,412	9,696	1,760	2,111	31,234	3,326	1,216	2,487	7,029	38,263
1980	8,018	6,821	7,807	1,590	2,012	26,248	3,119	1,142	2,387	6,648	32,896
1981	8,388	6,270	7,183	1,501	1,395	24,737	3,313	1,182	1,602	6,097	30,834
1982	8,464	5,793	6,775	1,349	1,303	23,684	2,127	634	2,488	5,249	28,935
1983*											
1ST QUARTER	2,442	1,827	1,830	364	354	6,817	527	227	650	1,404	8,221
2ND QUARTER	2,695	2,154	2,187	419	409	7,864	554	217	665	1,436	9,300
3RD QUARTER	2,631	1,925	2,151	410	391	7,508	626	205	716	1,547	9,055
4TH QUARTER	2,446	1,856	2,096	389	374	7,201	605	180	677	1,462	8,663
TOTAL YEAR	10,214	7.802	8.264	1,582	1,528	29,390	2,312	829	2,708	5,849	35,239
1984*											
1ST QUARTER	2,527	2,196	2,126	421	372	7,642	658	218	673	1,549	9,191
2ND QUARTER	2,780	2,263	2,395	440	402	8,280	653	238	686	1,577	9,857
3RD QUARTER	2,718	2,038	2,284	415	381	7,836	671	180	654	1,505	9,341
4TH QUARTER	2,549	1,912	2,209	397	361	7,428	632	138	593	1,363	8,791
TOTAL YEAR	10,574	8,409	9,014	1,673	1,516	31,186	2,614	774	2,606	5,994	37,180
1985*											
1ST QUARTER	2,414	1,807	1,899	385	332	6,837	698	210	699	1,607	8,444
2ND QUARTER	2,967	2,012	2,422	495	403	8,299	747	226	750	1,723	10,022
3RD QUARTER	2,687	1,890	2,525	438	385	7,925	695	172	668	1,535	9,460
4TH QUARTER											
TOTAL YEAR	8,068	5,709	6,846	1,318	1,120	23,061	2,140	608	2,117	4,865	27,926
NEW ORDERS											
1975	7,251	7,430	8,665	1,702	1,583	26,631	2,745	1,104	1,991	5,840	32,471
1976	7,779	8,377	9,760	2,067	1,687	29,670	3,015	1,165	2,200	6,380	36,050
1977	8,970	8,712	10,331	2,119	1,762	31,894	3,163	1,244	2,488	6,895	38,789
1978	9,273	8,894	9,946	1,847	2,043	32,003	3,288	1,239	2,560	7,087	39,090
1979	9,273	8,388	9,630	1,664	2,098	31,053	3,250	1,184	2,429	6,863	37,916
1980	7,964	6,791	7,730	1,563	1,996	26,044	3,060	1,118	2,338	6,516	32,560
1981	8,433	6,200	7,076	1,501	1,387	24,597	3,341	1,198	1,617	6,156	30,753
1982	8,510	5,976	6,880	1,388	1,311	24,065	2,122	650	2,495	5,268	29,335
1983*											
1ST QUARTER	2,582	1,916	1,927	342	370	7,137	522	225	644	1,391	8,528
2ND QUARTER	2,659	2,102	2,197	403	403	7,764	557	218	669	1,444	9,208
3RD QUARTER	2,621	1,914	2,163	416	389	7,503	629	207	721	1,557	9,060
4TH QUARTER	2,555	1,932	2,063	412	382	7,344	636	184	707	1,527	8,871
TOTAL YEAR	10,417	7,864	8,350	1,573	1,544	29,748	2,344	834	2,741	5,919	35,667
1984*											
1ST QUARTER	2,426	2,346	2,173	401	375	7,721	694	228	709	1,631	9,352
2ND QUARTER	2,752	2,072	2,311	397	385	7,917	599	235	643	1,477	9,394
3RD QUARTER	2,694	2,055	2,325	426	383	7,883	648	175	634	1,457	9,340
4TH QUARTER	2,470	1,823	2,202	416	353	7,264	642	139	602	1,383	8,647
TOTAL YEAR	10,342	8,296	9,011	1,640	1,496	30,785	2,583	777	2,588	5,948	36,733
1985*											
1ST QUARTER	2,368	1,826	1,905	395	331	6,825	724	210	718	1,652	8,477
2ND QUARTER	2,979	1,987	2,508	505	408	8,387	723	220	727	1,670	10,057
3RD QUARTER	2,778	1,898	2,486	399	387	7,948	705	177	679	1.561	9,509
4TH QUARTER											
TOTAL YEAR	8,125	5,711	6,899	1,299	1,126	23,160	2,152	607	2,124	4,883	28,043

* SUBJECT TO REVISION.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING

12/10/85

TABLE 2

ESTIMATED REGIONAL SOURCES OF DOMESTIC CONSUMPTION OF LUMBER (NET IMPORTS ALLOCATED)

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
1975	7,075	9,561	9,220	1,588	2,865	30,309	2,722	3,069	5,791	36,100
1976	7,641	12,069	10,820	1,981	3,575	36,086	3,054	3,387	6,441	42,527
1977	8,774	14,081	11,626	2,026	4,302	40,809	3,158	3,732	6,890	47,699
1978	9,096	15,133	11,559	1,849	5,003	42,640	3,242	3,755	6,997	49,637
1979	9,060	14,248	10,553	1,729	5,018	40,608	3,342	3,597	6,939	47,547
1980	7,757	11,461	8,509	1,563	4,542	33,832	3,028	3,244	6,272	40,104
1981	8,177	10,828	7,760	1,463	3,836	32,064	3,202	2,653	5,855	37,919
1982	8,232	10,381	7,316	1,327	3,917	31,173	2,031	3,066	5,098	36,270
1983*										
1ST QUARTER	2,442	3,290	1,982	359	1,150	9,223	487	810	1,297	10,520
2ND QUARTER	2,698	3,695	2,333	413	1,300	10,439	505	806	1,311	11,750
3RD QUARTER	2,644	3,638	2,296	403	1,273	10,254	572	858	1,430	11,684
4TH QUARTER	2,449	3,486	2,237	383	1,271	9,826	558	802	1,360	11,186
TOTAL YEAR	10,233	14,108	8,848	1,558	4,995	39,742	2,121	3,276	5,397	45,138
1984*										
1ST QUARTER	2,528	3,854	2,284	416	1,305	10,387	588	781	1,369	11,756
2ND QUARTER	2,771	3,965	2,564	425	1,404	11,128	576	821	1,397	12,525
3RD QUARTER	2,725	4,070	2,430	410	1,464	11,099	592	751	1,343	12,442
4TH QUARTER	2,546	3,782	2,329	393	1,353	10,402	564	679	1,242	11,645
TOTAL YEAR	10,570	15,672	9,606	1,643	5,526	43,017	2,320	3,031	5,351	48,368
1985*										
1ST QUARTER	2,377	3,640	2,002	382	1,304	9,704	696	914	1,610	11,314
2ND QUARTER	2,923	4,344	2,582	491	1,643	11,983	742	983	1,726	13,709
3RD QUARTER	2,647	4,127	2,663	434	1,526	11,399	685	830	1,515	12,913
4TH QUARTER										
TOTAL YEAR	7,947	12,111	7,247	1,307	4,473	33,086	2,123	2,727	4,850	37,936

* SUBJECT TO REVISION
** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHERS.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

12/10/85

TABLE 3

IMPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS											
	DOUGLAS FIR	OTHER FIR	HEMLOCK	SPRUCE	PINE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES (SAWED)	TOTAL LUMBER
1975	477.0	56.8	726.2	2,989.0	1,033.3	328.3	6.0	94.8	5,711.4	224.1	12.4	5,947.9
1976	744.2	91.3	1,083.8	4,116.0	1,305.4	480.2	8.7	121.2	7,950.8	228.3	8.2	8,187.3
1977	990.7	299.4	1,219.2	5,361.6	1,795.5	537.7	22.2	154.0	10,380.3	341.1	7.4	10,728.8
1978	976.2	508.9	1,219.8	6,312.9	1,916.9	657.5	41.8	190.6	11,824.6	361.4	12.3	12,198.3
1979	827.3	588.3	912.3	6,740.4	1,182.5	637.8	35.4	193.7	11,117.7	376.2	29.3	11,523.2
1980	559.0	440.8	627.8	6,167.9	1,023.9	543.4	20.7	156.6	9,540.1	293.2	31.3	9,864.6
1981	483.3	534.7	467.0	6,010.7	941.7	574.4	17.0	175.9	9,204.7	291.1	24.9	9,520.7
1982	504.3	460.7	293.9	6,341.2	801.6	539.0	28.8	149.4	9,118.9	211.0	26.2	9,356.0
1983												
1ST QUARTER	137.7	149.8	108.5	1,955.7	226.8	170.4	8.5	54.0	2,811.4	55.4	1.6	2,868.4
2ND QUARTER	132.5	181.0	85.0	2,148.9	240.0	157.9	24.0	61.7	3,031.0	61.0	4.0	3,096.1
3RD QUARTER	184.3	225.9	123.6	2,081.1	234.0	178.2	28.0	67.5	3,122.7	63.6	3.8	3,190.0
4TH QUARTER	145.8	152.0	99.5	2,168 7	219.0	157.6	13.0	56.8	3,012.3	80.5	3.2	3,095.9
TOTAL YEAR	600.3	708.6	416.7	8,354.4	919.8	664.1	73.5	239.9	11,977.4	260.5	12.5	12,250.4
1984												
1ST QUARTER	140.1	151.1	135.0	2,152.8	240.7	190.9	9.4	75.6	3,035.6	85.7	3.1	3,184.4
2ND QUARTER	137.1	168.6	96.8	2,390.5	251.8	136.3	9.0	59.3	3,249.4	87.1	6.6	3,343.1
3RD QUARTER	147.5	264.4	140.5	2,551.2	225.8	200.9	8.9	72.8	3,612.0	73.9	8.0	3,693.9
4TH QUARTER	178.2	151.0	142.6	2,377.0	183.4	176.4	7.7	67.3	3,313.2	81.0	6.5	3,400.7
TOTAL YEAR	603.0	765.1	514.9	9,471.4	901.6	704.1	35.0	275.0	13,270.2	327.7	24.2	13,622.2
1985												
1ST QUARTER	154.6	189.1	171.1	2257.0	165.8	210.2	26.9	66.9	3241.6	105.9	3.2	3350.7
2ND QUARTER	205.9	200.0	185.6	2907.4	237.8	233.3	10.2	89.2	4069.3	96.1	11.8	4177.2
3RD QUARTER	247.4	236.0	151.0	2685.4	215.0	203.7	14.0	89.3	3841.8	85.3	7.7	3934.8
4TH QUARTER												
TOTAL YEAR	608.0	625.0	507.7	7,849.8	618.6	647.3	51.1	245.3	11,152.7	287.3	22.7	11,462.7

EXPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS												
	DOUGLAS FIR	SOUTHERN PINE	PONDEROSA/ WHITE PINE	REDWOOD	HEMLOCK	SPRUCE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES \4 (SAWED)	TOTAL \5 LUMBER
1975	505.1	67.5	177.0	37.4	317.5	158.8	35.7	74.2	----	1,373.2	165.3	75.6	1,614.1
1976	571.7	141.4	214.0	61.3	294.2	165.5	60.7	75.7	----	1,584.5	225.5	30.9	1,840.9
1977	468.3	157.8	195.0	48.1	264.2	150.7	61.3	47.0	----	1,412.4	226.1	19.2	1,657.7
1978	456.9	130.5	136.9	34.3	272.5	135.4	59.2	120.1	23.1	1,368.9	320.1	25.8	1,714.8
1979	505.4	195.1	147.7	30.1	463.7	151.1	56.0	179.4	16.2	1,744.7	306.6	90.5	2,141.8
1980	520.8	261.4	168.1	27.3	511.2	136.4	62.0	248.6	20.2	1,956.0	378.6	128.3	2,462.9
1981	509.0	211.2	223.8	37.7	390.2	141.4	56.9	280.6	16.8	1,877.6	405.7	88.8	2,372.1
1982	457.2	231.8	140.8	22.5	391.7	124.9	40.5	206.0	14.8	1,630.2	356.2	34.4	2,020.8
1983													
1ST QUARTER	134.3	54.1	40.8	5.0	95.2	35.2	11.8	54.8	2.7	434.0	100.5	9.2	543.7
2ND QUARTER	170.2	57.0	57.5	6.4	95.0	27.2	12.8	58.2	2.9	487.2	121.0	16.4	624.6
3RD QUARTER	121.6	46.3	53.6	6.6	86.2	28.1	12.0	50.8	2.0	407.2	126.0	10.6	543.8
4TH QUARTER	133.1	51.0	45.4	6.1	99.8	23.3	10.2	44.1	3.1	416.1	130.8	11.1	557.9
TOTAL YEAR	559.3	208.4	197.3	24.0	376.2	113.9	46.8	207.8	10.8	1,744.5	478.2	47.2	2,269.9
1984													
1ST QUARTER	136.8	39.1	46.9	5.5	77.8	24.9	10.7	42.8	2.9	387.5	117.4	30.9	535.9
2ND QUARTER	159.3	53.5	45.0	15.1	81.8	19.8	10.1	56.0	3.8	444.2	129.3	9.4	582.9
3RD QUARTER	131.7	35.7	46.0	5.2	84.8	25.6	9.7	47.8	3.1	389.7	112.4	24.6	526.7
4TH QUARTER	104.3	44.1	36.3	4.4	93.1	27.7	8.7	56.1	3.3	377.9	107.4	19.7	505.0
TOTAL YEAR	532.1	172.4	174.1	30.1	337.4	98.1	39.2	202.7	13.1	1,599.3	466.5	84.6	2,150.4
1985													
1ST QUARTER	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7
2ND QUARTER	129.9	44.4	42.1	3.8	83.2	17.2	7.0	55.1	2.8	385.4	97.3	7.7	490.4
3RD QUARTER	113.1	39.5	44.4	3.5	78.2	14.2	6.4	65.5	3.1	368.0	96.3	17.1	481.3
4TH QUARTER													
TOTAL YEAR	360.6	120.9	124.3	10.7	262.9	52.4	19.6	167.6	8.7	1,127.8	296.2	28.4	1,452.4

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1. Sawed timber, board planks and scantlings, flooring, box shook and railroad ties.
2. Includes siding and softwood lumber drilled or treated. Beginning 1978 includes siding and flooring. For exports, figures not availa prior to 1978.
3. Includes hardwood flooring, siding and hardwood lumber drilled or treated.
4. Includes a small amount of hewn railroad ties. Beginning with 1978 includes mine timber.
5. Includes box shook: 1973 - 4.4 mbf; 1974 - 6.1 mbf; 1975 - 4.1 mbf; 1976 - 6.0 mbf; 1977 - 5.8 mbf. Beginning with 1978 box shook is reported in appropriate species.

SOURCE: Foreign Agricultural Service, U.S. Department of Agriculture; Forest Products Division, BIE, U.S. DOC, from data of the Foreign Trade Division, Bureau of Census.

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

12/10/85

TABLE 4

ESTIMATED GROSS MILL STOCKS OF LUMBER AND UNFILLED ORDERS FOR LUMBER BY REGION

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
GROSS MILL STOCKS										
DECEMBER 31ST										
1975	1,134	920	1,270	477	262	4,063	448	427	875	4,938
1976	1,245	949	1,315	434	271	4,214	453	432	885	5,099
1977	1,192	964	1,329	359	265	4,109	412	385	797	4,906
1978	1,197	903	1,295	377	260	4,032	422	398	820	4,852
1979	1,225	918	1,379	435	273	4,230	558	547	1,105	5,335
1980	1,424	912	1,185	434	273	4,228	780	792	1,572	5,800
1981	1,451	912	1,149	385	270	4,167	841	886	1,727	5,894
1982	1,741	862	1,055	336	276	4,270	775	764	1,539	5,809
1983*										
1ST QUARTER	1,743	1,060	1,158	391	295	4,647	736	687	1,423	6,070
2ND QUARTER	1,706	1,000	1,158	377	288	4,529	682	579	1,261	5,790
3RD QUARTER	1,711	1,013	1,269	349	292	4,634	688	590	1,278	5,912
4TH QUARTER	1,708	994	1,279	334	291	4,606	708	626	1,334	5,940
1984*										
1ST QUARTER	1,801	1,135	1,405	348	310	4,999	710	632	1,342	6,341
2ND QUARTER	1,808	1,136	1,459	352	312	5,047	722	654	1,376	6,423
3RD QUARTER	1,782	1,083	1,368	344	304	4,881	765	721	1,486	6,367
4TH QUARTER	1,808	914	1,257	325	290	4,594	795	761	1,556	6,150
1985*										
1ST QUARTER	1,736	930	1,343	376	293	4,678	805	982	1,787	6,465
2ND QUARTER	1,836	897	1,308	351	295	4,687	838	1,038	1,876	6,563
3RD QUARTER	1,846	900	1,297	360	296	4,699	856	1,061	1,917	6,616
4TH QUARTER										
ESTIMATED UNFILLED ORDERS										
DECEMBER 31ST										
1975	453	550	538	204	256	2,001	260	177	437	2,438
1976	450	634	554	227	264	2,129	243	157	400	2,529
1977	488	565	590	271	267	2,181	292	214	506	2,687
1978	535	553	469	234	259	2,050	332	253	585	2,635
1979	553	529	403	138	246	1,869	256	163	419	2,288
1980	499	499	326	111	230	1,665	197	90	287	1,952
1981	544	429	219	111	222	1,525	225	121	346	1,871
1982	590	612	324	150	230	1,906	221	144	365	2,271
1983*										
1ST QUARTER	730	701	421	128	260	2,240	216	136	352	2,592
2ND QUARTER	694	649	431	112	254	2,140	219	141	360	2,500
3RD QUARTER	684	638	443	118	252	2,135	222	148	370	2,505
4TH QUARTER	792	674	410	141	260	2,278	253	182	435	2,713
1984*										
1ST QUARTER	692	824	457	121	263	2,357	289	228	517	2,874
2ND QUARTER	664	633	373	78	246	1,994	235	182	417	2,411
3RD QUARTER	640	650	414	89	248	2,041	212	157	369	2,410
4TH QUARTER	561	561	407	108	240	1,877	222	167	389	2,266
1985*										
1ST QUARTER	705	587	464	128	252	2,136	241	160	401	2,537
2ND QUARTER	573	555	503	116	246	1,993	241	163	404	2,397
3RD QUARTER	618	563	460	89	246	1,976	227	151	378	2,354
4TH QUARTER										
UNFILLED ORDERS IN RELATION TO GROSS MILL STOCKS (Unfilled Orders As Percentage of Mill Stocks)										
1975	40%	60%	42%	43%	98%	49%	58%	41%	50%	49%
1976	36%	67%	42%	52%	97%	51%	54%	36%	45%	50%
1977	41%	59%	44%	75%	101%	53%	71%	56%	63%	55%
1978	45%	61%	36%	62%	100%	51%	79%	64%	71%	54%
1979	45%	58%	29%	32%	90%	44%	46%	30%	38%	43%
1980	35%	55%	28%	26%	84%	39%	25%	11%	18%	34%
1981	37%	47%	19%	29%	82%	37%	27%	14%	20%	32%
1982	34%	71%	31%	45%	83%	45%	29%	19%	24%	39%
1983*										
1ST QUARTER	42%	66%	36%	33%	88%	48%	29%	20%	25%	43%
2ND QUARTER	41%	65%	37%	30%	88%	47%	32%	24%	29%	43%
3RD QUARTER	40%	63%	35%	34%	86%	46%	32%	25%	29%	42%
4TH QUARTER	46%	68%	32%	42%	89%	49%	36%	29%	33%	46%
1984*										
1ST QUARTER	38%	73%	33%	35%	85%	47%	41%	36%	39%	45%
2ND QUARTER	37%	56%	26%	22%	79%	40%	33%	28%	30%	38%
3RD QUARTER	36%	60%	30%	26%	82%	42%	28%	22%	25%	38%
4TH QUARTER	31%	61%	32%	33%	83%	41%	28%	22%	25%	37%
1985*										
1ST QUARTER	41%	63%	35%	34%	86%	46%	30%	16%	22%	39%
2ND QUARTER	31%	62%	38%	33%	83%	43%	29%	16%	22%	37%
3RD QUARTER	33%	63%	35%	25%	83%	42%	27%	14%	20%	36%
4TH QUARTER										

* SUBJECT TO REVISION.
** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHER.

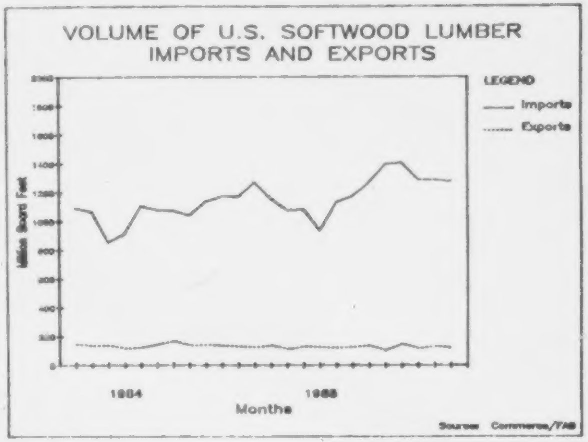
SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS BECAUSE OF ROUNDING.

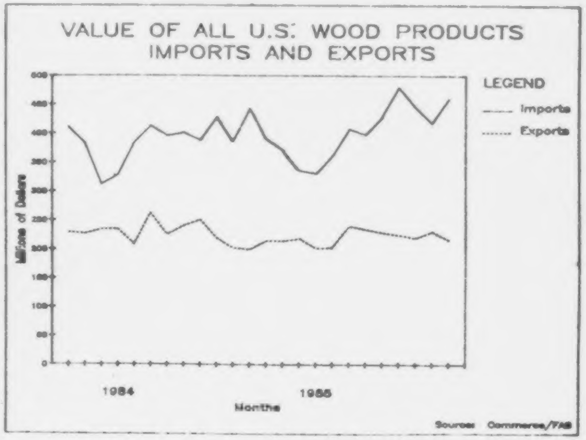
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE (000$)			
		Sept. '85	9 mo. 1985	% Change From Aug. '85	% Change From 9 mo. 1984	Sept. '85	9 mo. 1985	% Change From Aug. '85	% Change From 9 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	119.6	1,127.8	-8.9%	-7.7%	38,600	370,488	-10.2%	-9.9%
To Canada	MMBF	26.4	227.9	-7.7%	-17.2%	6,592	57,340	-9.6%	-11.1%
SOFTWOOD LOGS	MMBF	324.9	2,828.4	1.0%	14.9%	98,323	887,375	-3.9%	9.8%
SOFTWOOD PLYWOOD	MMSF 3/8"	18.2	219.6	44.1%	-25.5%	4,168	51,897	11.2%	-24.6%
HARDWOOD LUMBER	MMBF	32.2	296.2	-10.4%	-17.5%	19,550	184,130	-13.4%	-14.6%
HARDWOOD LOGS	MMBF	4.3	87.1	-7.9%	-41.8%	2,812	68,873	-10.7%	-13.7%
HARDWOOD VENEER	MMSFsurf	71.4	571.7	38.7%	-27.5%	5,862	45,816	46.1%	-28.5%
PARTICLEBOARD	MMSF 3/4"	9.4	80.7	-8.3%	-3.9%	1,967	16,234	7.4%	-22.0%
ALL OTHER		NA	NA	NA	NA	43,544	363,166	-3.5%	2.7%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	216,245	2,001,686	-6.4%	-1.9%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,273.1	11,152.7	-0.7%	12.0%	257,467	2,212,404	-2.4%	8.3%
From Canada	MMBF	1,259.7	11,091.2	-1.5%	11.8%	254,769	2,199,689	-3.0%	8.1%
SOFTWOOD LOGS	MMBF	16.7	55.4	470.3%	-40.8%	3,261	13,802	442.6%	18.0%
SOFTWOOD PLYWOOD	MMSF 3/8"	10.1	64.4	76.9%	8.5%	2,478	15,772	115.1%	21.3%
HARDWOOD LUMBER	MMBF	32.6	287.3	35.2%	16.4%	18,001	144,390	52.6%	9.7%
HARDWOOD LOGS	MMBF	0.5	18.5	-91.8%	-13.1%	120	2,640	-62.7%	-21.1%
HARDWOOD VENEER	MMSFsurf	116.0	1,054.8	-7.4%	-12.3%	8,607	76,805	-7.7%	-23.9%
HARDWOOD PLYWOOD	MMSF 3/8"	323.7	2,652.3	61.3%	13.2%	42,320	335,328	75.8%	0.6%
HARDBOARD	MMSFsurf	91.2	570.2	51.0%	173.6%	4,955	39,150	33.2%	17.3%
PARTICLEBOARD	MMSF 3/4"	52.9	418.3	14.9%	8.7%	13,849	102,574	15.7%	5.1%
ALL OTHER		NA	NA	NA	NA	108,966	787,290	20.3%	-1.1%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	460,392	3,733,519	10.2%	4.6%

Note: Volume total is not possible because the products are in different units of measure.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

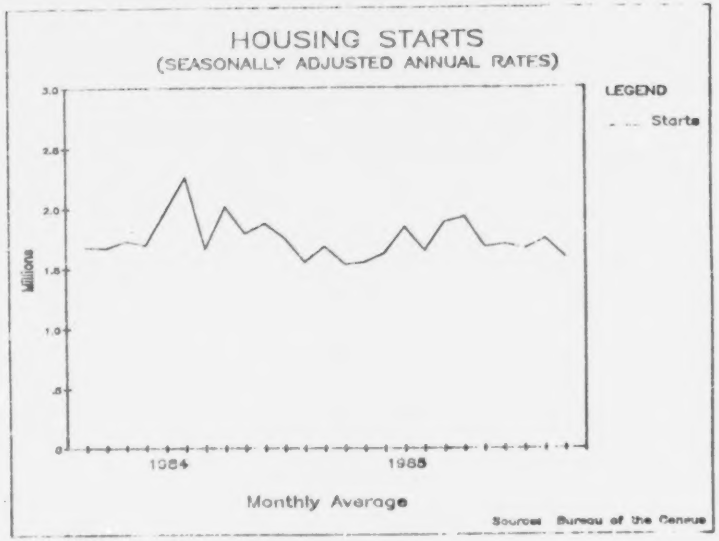
Source: Commerce/FAS

CONSTRUCTION AND HOUSING STATISTICS

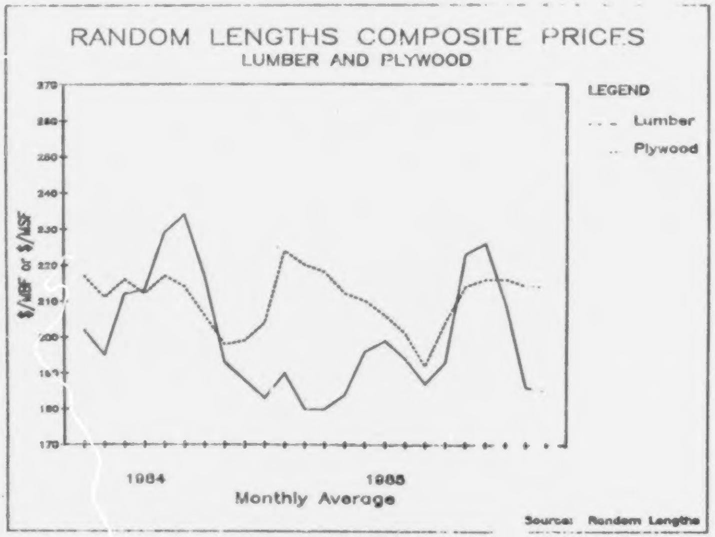
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Sept. '85	Aug. '85	Sept. '84	9 mo. '85	9 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW					
CONSTRUCTION PUT-IN-PLACE	33.0	2.2%	12.1%	253.9	10.3%
Private	26.2	2.7%	12.2%	207.5	9.9%
Residential	14.0	0.0%	12.0%	110.4	7.0%
Nonresidential & Other	12.2	5.1%	12.4%	97.1	13.3%
Public	6.9	3.0%	13.4%	46.4	12.8%
	Sept. '85	Aug. '85	Sept. '84	9 mo. '85	9 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	145.9	-9.4%	-4.5%	1,496.3	-2.2%
New Private Starts	144.9	-9.8%	-4.9%	1,493.3	-2.0%
Seas. Adj. Annual Rate	1589	-8.7%	3.5%		
One-Family Housing Starts	89.3	-10.3%	-2.8%	932.6	-0.9%
Proportion of Total	61.2%			62.3%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	24,500	-11.6%	0.8%	218,100	-4.7%

EMPLOYMENT STATISTICS

		---% Change From---	
	Sept. '85	Aug. '85	Sept. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	98,115	0.1%	3.1%
All Manufacturing Industries	19,272	-0.5%	-2.1%
Lumber and Wood Products	702	0.3%	-1.1%
Furniture and Fixtures	495	-0.8%	1.6%



Source: Bureau of the Census



Source: Random Lengths

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NFPA Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume I Number 9 December, 1985

ITC REFINES U.S. AND CANADIAN PRODUCTIVITY NUMBERS

In October of this year, the International Trade Commission issued an updated "332" investigation, requested by the United States Trade Representative to identify the facts and circumstances surrounding Canadian imports of softwood lumber to the United States. Both the U.S. Coalition for Fair Lumber Imports and the Canadian industry found elements supporting their respective viewpoints in the October report. The report concluded that stumpage prices and delivered log prices were on average lower in Canada than in the United States. But the October report also concluded that productivity in the Canadian lumber industry was higher than in the United States. This finding provoked some controversy since many in the U.S. industry have claimed that domestic productivity had increased dramatically since the 1970's.

In December, the ITC issued revisions to several sections of its report. This ITC paper further analyzes productivity in the United States and Canadian industries. The ITC refinement of the productivity measures is significant because Canada has argued that factors other than lower stumpage prices have resulted in greater exports to the U.S. Among those factors, they argue, is the higher productivity and greater efficiency of the Canadian industry. A significantly more productive Canadian industry would explain why they have been able to export so much wood at more competitive prices, and would undercut U.S. assertions that differences in stumpage pricing practices were the cause of the Canadian success.

The refinement of the productivity issue was made because questions were raised about the original 332 report. Pressed by the U.S. Coalition for Fair Lumber Imports, the ITC subsequently conducted a much more thorough examination of existing data sources on employment, production, value added and hours worked in the softwood lumber industry.

Bureau of Labor Statistics and Commerce Statistics Vary

Data on U.S. employment originates with two agencies: the Bureau of Labor Statistics (BLS) and the Bureau of the Census (Census). Both agencies issue employment figures: BLS does so monthly, Census annually. BLS obtains data from state governments, which are required to collect employment information for state and federal employment insurance programs, and then factors in corporate head offices and non-production facilities. The Bureau of the Census, on the other hand, collects its information directly from reporting establishments. Every five years the agency conducts a complete canvass of every industry, and updates this information yearly by a sample survey.

The ITC Needed to Make Adjustments to Compare U.S. and Canadian Data

Attempting to isolate softwood lumber employment from broader categories which include other wood products is difficult task, given the diversity and broad geographical dispersal of the U.S. industry. Comparing employment (and

MONTHLY STATISTICAL HIGHLIGHTS

Production and shipments of softwood lumber were up in October from September levels, 6.2% and 1.4% respectively.

The wood products trade deficit through ten months of 1985 was $1,963,631,000.

Structural panel production through ten months of 1985 totaled 19,586 million square feet, 3% ahead of last year.

After having slipped in September, the annual rate of new housing starts rose 9.0% in October to 1,761,000 units.

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hence productivity) between the U.S. and Canada is also made difficult because exactly comparable data for the two countries do not exist. The ITC, however, made adjustments in order to address the productivity question. As a result, the agency has generated new data on average mill efficiency and productivity and identified some important differences between the U.S. and Canadian softwood lumber industries.

On Average, U.S. Mills are Smaller and Less Specialized

The industries in the two countries differ in some important respects. First, the United States has more softwood lumber producers than does Canada, and they are, on average, smaller in size. Sixty percent of Canada's lumber producing mills have a capacity of 25 million board feet or more, whereas only 20 percent of U.S. mills fit that description. The Canadian industry is therefore more concentrated.

Secondly, U.S. mills tend to be more diverse in product output than Canadian mills. Often, U.S. mills produce both hardwoods and softwoods in a wide range of products. Custom milling is frequent. In Canada, lumber mills generally produce only softwood lumber, and then mostly in sizes geared to the construction industry.

Lastly, many species of U.S. lumber carry a higher market value. On average, value-added by U.S. lumber producers is higher than in Canada. Douglas fir and western hemlock, for example, have a higher value than the spruce-fir of interior British Columbia.

In comparing the industries between the two countries, the ITC notes that Canada has increased the number of establishments between 1977 and 1984 by 85 mills. Comparing the same two years in the United States, they found a net decrease of 629 establishments. According to the ITC, 2,856 establishments produced softwood lumber in 1984. This suggests an average production per mill of 13.1 thousand board feet, 34 percent lower than the 19.9 thousand board feet average in Canada.

Average Output Per Mill in Canada is Higher By Six Percent

Average production per employee in the United States was 367,821 thousand board feet in 1984. This has been increasing at an average annual rate of 4.8 percent since 1977. Canadian production per employee averaged 463,962 board feet in 1984. Canadian output per employee was 6 percent higher than in the United States. However, the higher ratio is explained by the larger mill size, which enables greater efficiencies and specialization. (Table 1.)

Table 1: Comparison of U.S. and Canadian sawmill and productivity statistics.

COMPARISON OF U.S. AND CANADIAN PRODUCTIVITY STATISTICS

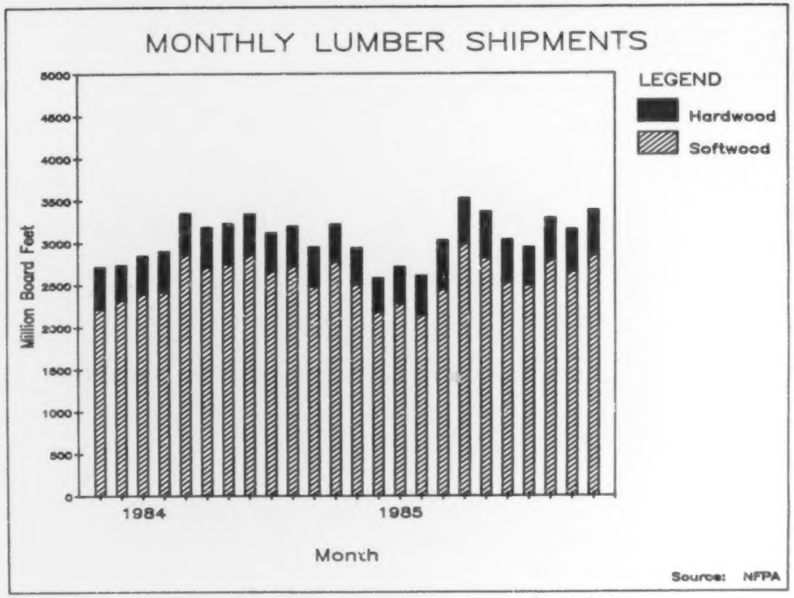
	UNITED STATES				CANADA			
	Number of Mills	Number of Employees	Employees per Mill	MBF per Employee	Number of Mills	Number of Employees	Employees per Mill	MBF per Employee
1977	3,485	119,553	34	275,443	947	49,794	53	345,925
1978	3,493	114,165	33	291,666	1,042	55,733	53	330,360
1979	3,521	120,100	34	270,908	1,089	56,106	52	329,626
1980	3,481	110,389	32	247,633	1,062	52,597	50	347,851
1981	3,333	99,542	30	258,856	941	44,245	47	372,742
1982	2,918	79,073	27	318,023	900	38,817	43	400,550
1983	2,855	85,609	30	369,260	1,045	46,321	44	435,985
1984	2,856	89,133	31	367,821	1,032	44,374	43	463,962

Source: U.S. International Trade Commission

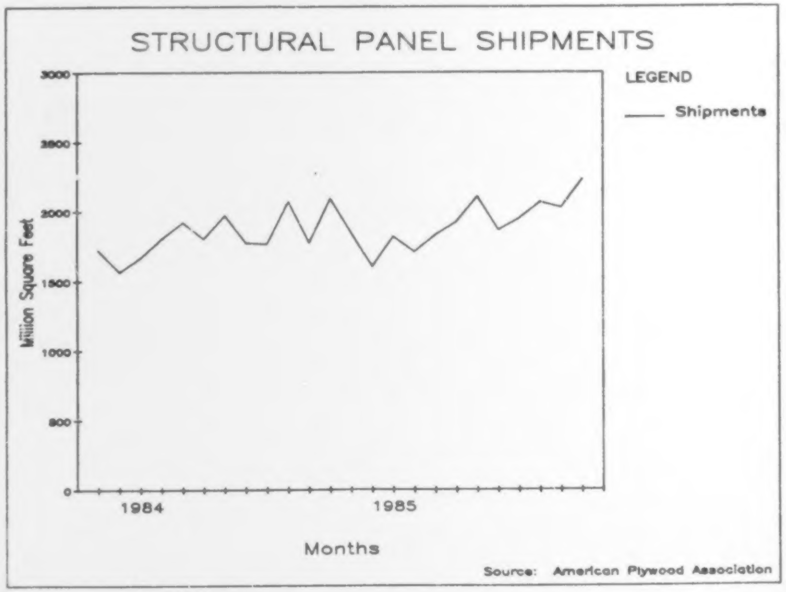
ECONOMICS MONTHLY
December, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	OCTOBER 1985			OCTOBER 31, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER	(Million Board Feet)				
Southern Pine Region	944	915	924	628	1,876
Douglas Fir Region	744	684	659	538	960
Western Pine Region	866	835	816	441	1,328
California Redwood Region	159	137	135	87	382
Other Softwoods	139	131	129	243	304
TOTAL SOFTWOODS	2,852	2,702	2,663	1,937	4,850
% Change - September 1985	6.2%	1.4%	-1.3%	-2.0%	3.2%
% Change - October 1984	5.6%	-2.1%	-2.9%	-4.3%	0.6%
HARDWOOD LUMBER					
Southern Hardwood Region	259	252	245	227	856
Appalachian Hardwood Reg.	43	41	41	*	*
Other Hardwoods	233	226	220	150	1,064
TOTAL HARDWOODS	535	519	506	377	1,920
% Change - September 1985	3.5%	3.4%	3.7%	-3.3%	0.8%
% Change - October 1984	4.5%	9.7%	5.9%	5.6%	11.0%
TOTAL LUMBER	3,387	3,221	3,169	2,314	6,770
% Change - September 1985	5.7%	1.7%	-0.6%	-2.2%	2.5%
% Change - October 1984	5.4%	-0.4%	-1.6%	-2.8%	3.3%
* Included in Other Hardwoods					
FLOORING	(Thousand Feet)				
Oak Flooring (Bd. Ft.)	NA	12,447	NA	4,228	6,014
Maple Flooring (Sq. Ft.)	1,048	1,187	1,210	3,664	1,553
STRUCTURAL PANELS	2,264,031	2,226,913	2,041,669	683,301	321,276
% Change - September 1985	14.5%	10.2%	-7.6%	-21.3%	1.4%
% Change - October 1984	5.2%	6.5%	6.0%	68.1%	-4.5%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	10 mos. '85	10 mos. '84	10 mos. '85	10 mos. '84	10 mos. '85	10 mos. '84
			(Million Board Feet)			
TOTAL LUMBER	31,576	-1.4%	31,161	-1.5%	31,226	-0.3%
TOTAL SOFTWOOD	26,033	-2.6%	25,777	-2.8%	25,837	-1.6%
TOTAL HARDWOOD	5,543	4.7%	5,384	5.5%	5,389	6.9%

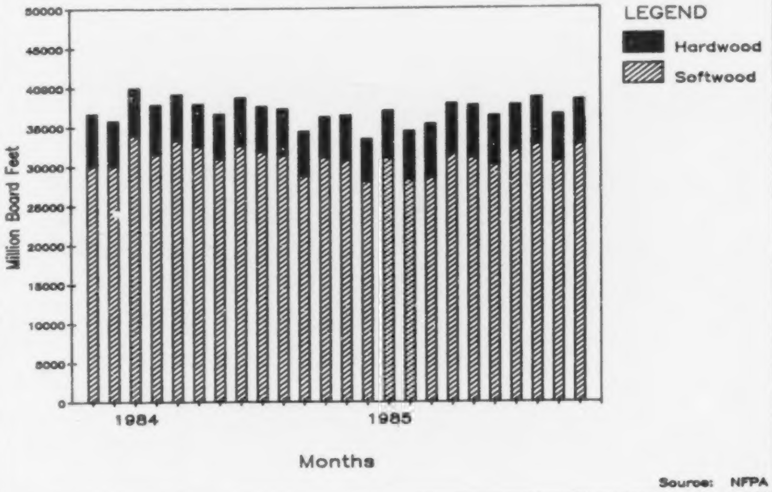
SEASONALLY ADJUSTED ANNUAL RATES

	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	Oct. '85	Sept. '85	Oct. '84	Oct. '85	Sept. '85	Oct. '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	10,637	-1.8%	-0.5%	10,558	-3.9%	-3.6%
Douglas Fir	9,027	16.3%	10.9%	8,159	4.6%	-7.4%
Western Pine	9,767	10.0%	9.1%	9,516	8.3%	5.2%
Calif. Redwood	1,744	-3.0%	2.6%	1,485	-11.0%	-4.9%
Other Softwoods	1,575	6.3%	6.1%	1,503	1.1%	-2.2%
TOTAL SOFTWOODS	32,750	6.5%	5.7%	31,220	1.6%	-2.2%
TOTAL HARDWOODS	5,676	-3.9%	4.5%	5,751	-2.2%	9.7%
TOTAL LUMBER	38,426	4.8%	5.5%	36,971	1.0%	-0.5%

U.S. LUMBER CONSUMPTION

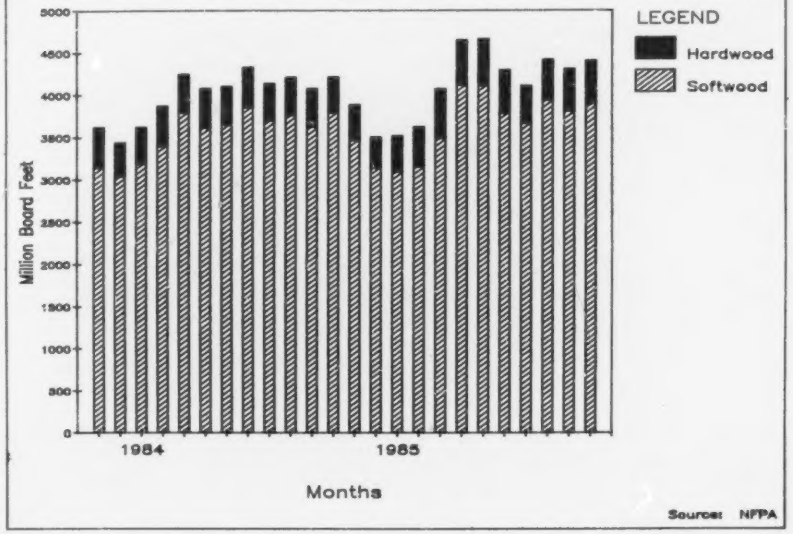
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	Oct. '85	Sept. '85	Oct. '84	10 mos.'85	10 mos.'84
		(Million Board Feet)			
Total Consumption	4,410	2.1%	4.3%	42,360	2.8%
Softwood Consumption	3,903	2.2%	3.3%	37,003	2.0%
Hardwood Consumption	506	1.0%	12.9%	5,357	8.9%

SEASONALLY ADJUSTED ANNUAL RATES MONTHLY LUMBER PRODUCTION



Source: NFPA

ESTIMATED U.S. CONSUMPTION OF LUMBER

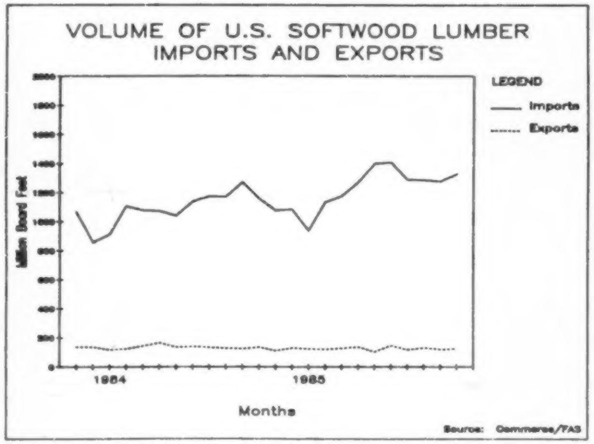


Source: NFPA

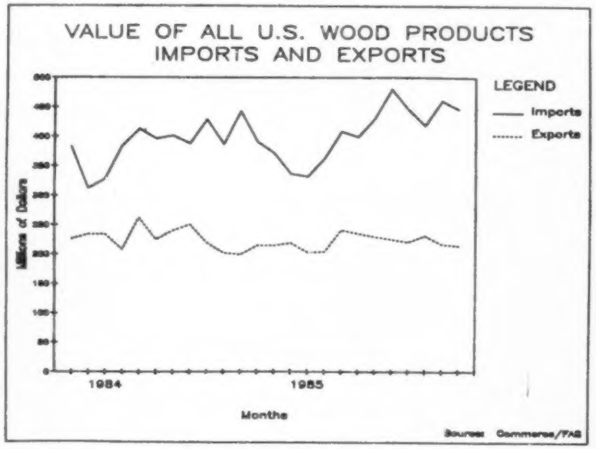
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Oct. '85	10 mo. 1985	% Change From Sept.'85	% Change From 10 mo. 1984	Oct. '85	10 mo. 1985	% Change From Sept. '85	% Change From 10 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	124.1	1,251.8	3.8%	-7.8%	39,711	410,199	2.9%	-9.7%
To Canada	MMBF	29.5	257.4	11.5%	-13.5%	7,014	64,354	6.4%	-8.1%
SOFTWOOD LOGS	MMBF	303.9	3,132.3	-6.5%	14.1%	93,579	980,954	-4.8%	9.8%
SOFTWOOD PLYWOOD	MMSF 3/8"	14.7	234.4	-18.9%	-24.2%	3,661	55,558	-12.2%	-23.2%
HARDWOOD LUMBER	MMBF	37.4	333.7	16.3%	-16.9%	23,786	207,916	21.7%	-14.4%
HARDWOOD LOGS	MMBF	7.0	94.1	64.1%	-45.5%	5,220	74,093	85.6%	-16.8%
HARDWOOD VENEER	MMSFsurf	71.2	642.9	-0.4%	-26.9%	5,431	51,247	-7.4%	-28.1%
PARTICLEBOARD	MMSF 3/4"	14.0	94.6	48.9%	2.3%	2,656	18,890	35.0%	-17.4%
ALL OTHER		NA	NA	NA	NA	38,785	401,951	-10.9%	3.8%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	213,995	2,215,681	-1.0%	-1.8%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,325.3	12,754.0	4.1%	2.5%	265,281	2,477,685	3.0%	9.5%
From Canada	MMBF	1,318.7	12,409.9	4.7%	12.0%	263,792	2,463,481	3.5%	9.4%
SOFTWOOD LOGS	MMBF	4.2	59.6	-74.8%	-44.8%	790	14,592	-75.8%	9.0%
SOFTWOOD PLYWOOD	MMSF 3/8"	9.4	73.8	-6.5%	12.2%	1,918	17,690	-22.6%	21.8%
HARDWOOD LUMBER	MMBF	25.1	312.4	-23.1%	14.3%	12,254	156,644	-31.9%	7.4%
HARDWOOD LOGS	MMBF	5.1	23.6	942.8%	0.3%	314	2,954	161.7%	-19.1%
HARDWOOD VENEER	MMSFsurf	122.7	1,177.6	5.8%	-9.9%	8,677	85,482	0.8%	-21.0%
HARDWOOD PLYWOOD	MMSF 3/8"	386.2	3,038.4	19.3%	17.6%	41,599	376,927	-1.7%	3.0%
HARDBOARD	MMSFsurf	74.0	644.2	-18.8%	181.7%	4,354	43,504	-12.1%	6.8%
PARTICLEBOARD	MSF 3/4"	53.5	471.8	1.0%	9.1%	14,378	116,952	3.8%	6.7%
ALL OTHER		NA	NA	NA	NA	96,007	883,297	-11.9%	-0.2%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	445,793	4,179,312	-3.2%	5.6%

Note: Volume total is not possible because the products are in different units of measure.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

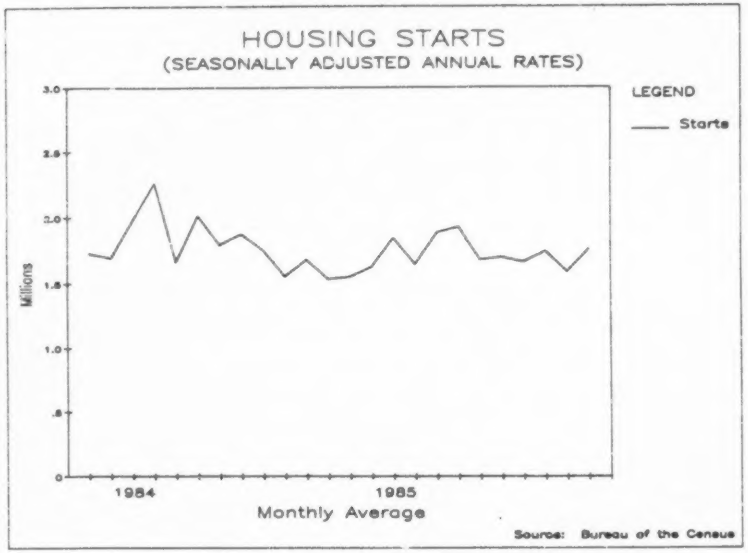
Source: Commerce/FAS

CONSTRUCTION AND HOUSING STATISTICS

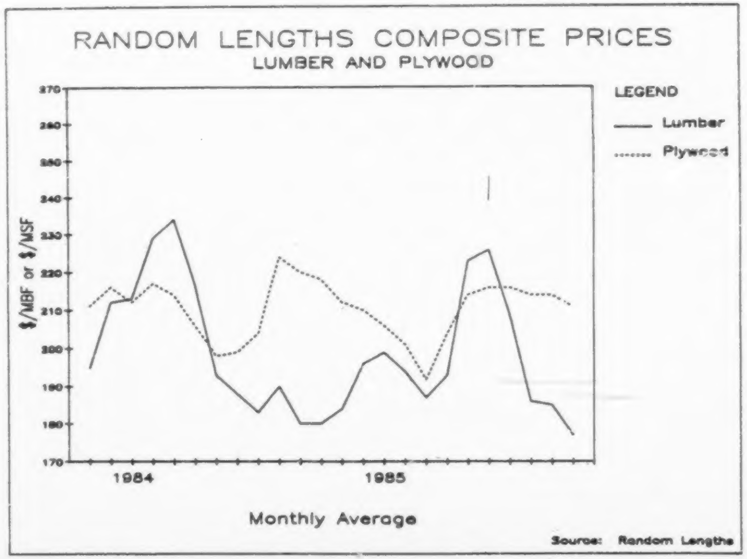
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Oct. '85	Sept. '85	Oct. '84	10 mo. '85	10 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	32.3	-0.9%	12.2%	285.9	10.4%
Private	26.0	0.8%	11.6%	233.2	9.9%
Residential	13.9	0.0%	16.8%	124.3	8.0%
Nonresidential & Other	12.1	1.7%	6.1%	108.9	12.2%
Public	6.2	-8.8%	10.7%	52.5	12.3%
	Oct. '85	Sept. '85	Oct. '84	10 mo. '85	10 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	172.0	15.7%	39.0%	1,499.0	-9.4%
New Private Starts	171.9	16.4%	39.2%	1,615.8	-1.9%
Seas. Adj. Annual Rate	1761	9.0%	13.3%		
One-Family Housing Starts	105.1	16.9%	34.2%	1,002.9	-1.6%
Proportion of Total	61.1%			66.9%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	27,700	13.1%	0.0%	245,800	-4.2%

EMPLOYMENT STATISTICS

		----% Change From---	
	Oct. '85	Sept. '85	Oct. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,319	1.2%	4.0%
All Manufacturing Industries	19,475	1.1%	-1.2%
Lumber and Wood Products	720	2.6%	1.0%
Furniture and Fixtures	499	0.9%	1.5%



Source: Bureau of the Census



Source: Random Lengths

Table 2: The Western Region has the highest productivity of the U.S. regions.

U.S. REGIONAL LUMBER PRODUCTIVITY

	West	South	North
1977	321,998	194,001	172,007
1982	365,002	303,996	212,018

Source: U.S. International Trade Commission

The ITC compared regional data is compared for 1977 and 1982. Productivity in the western U.S. has been higher than in the south and north. The south, however, experienced the highest rate of increase in productivity between 1977 and 1982 (Table 2).

The state of Washington was identified as having the highest output per employee of any state -- 484,443 board feet in 1982. This was higher than the average in any Canadian province, but somewhat lower than the productivity in interior British Columbia. The average productivity in British Columbia was calculated to be 427,460 board feet per employee in 1982; interior British Columbia was reported at 503,885 board feet per employee. In contrast, average productivity in the southern United States averaged 303,996, with South Carolina standing out as having the highest output per employee in the region with 390,672 board feet.

In general, productivity in the United States industry has been on the rise. The Commerce Department reports that U.S. manufacturing has increased its productivity on average 1.4 percent per year between 1977 and 1982 and 3.9

Table 3: A breakdown of regional sources of consumption further documents the growing Canadian share of the U.S. market.

REGIONAL SOURCES OF U.S. SOFTWOOD LUMBER CONSUMPTION, 1975 TO PRESENT

	U. S. MILLS				IMPORTS				TOTAL	
	Southern		West & Other		Canadian		Other		Consumption	
Year	Volume	PCT.	Volume	PCT.	Volume	PCT.	Volume	PCT.	Volume	PCT.
1975	7,075	23.4	17,495	57.8	5,666	18.7	45	0.1	30,281	100
1976	7,641	21.3	20,301	56.6	7,906	22.0	45	0.1	35,893	100
1977	8,774	21.5	21,631	53.0	10,344	25.4	42	0.1	40,791	100
1978	9,096	21.4	21,664	50.9	11,764	27.6	77	0.2	42,601	100
1979	9,060	22.3	20,393	50.3	11,068	27.3	50	0.1	40,571	100
1980	7,757	22.9	16,513	48.8	9,514	28.1	25	0.1	33,809	100
981	8,177	25.5	14,667	45.8	9,182	28.6	23	0.1	32,049	100
1982	8,232	26.4	13,817	44.3	9,091	29.2	28	0.1	31,168	100
1983	10,233	25.7	17,629	44.3	11,947	30.0	29	0.1	39,838	100
1984	10,570	24.6	19,153	44.6	13,221	30.7	49	0.1	43,001	100
to 10/85	9,064	24.4	15,657	42.1	12,410	33.4	25	0.1	37,156	100

Source: NFPA; WWPA; NIFM
Note: These figures include revisions to 1984 and 1985 softwood lumber data

percent since 1982. Productivity in the lumber industry has been increasing at about twice that rate. Better utilization of raw material, coupled with improvements in mill efficiencies, increased capacity and reductions in the work force have led to these improvements.

The ITC revisions to the productivity measures refocuses attention to allegations of subsidies on timber by the Canadian governments. Discussions currently underway by the two countries are addressing the lumber issue in hopes of clearing the way for free-trade negotiations between the countries. Unless disapproved by Congress, these negotiations will commence this year, but many in the Congress have stated that the lumber issue must be resolved before free trade talks begin in earnest. Congress will also consider this year several pieces of legislation dealing specifically with the lumber import question. The seriousness of the problem they will be asked to solve is exemplified in Table 4, which shows over a ten year time frame how Canada's share of the wood consumed in the U.S. has increased to over 33 percent.

BLS PROJECTS FURTHER DECLINES IN INDUSTRY EMPLOYMENT, EXCEPT FOR PANELS AND MILLWORK

In an unrelated report, the Bureau of Labor Statistics (BLS) has issued its projections by industrial sector of U.S. employment through 1995. Based on various ranges of macroeconomics condition, the projections suggest the fastest rate of growth and the most new jobs in the business services sector.

With respect to the wood products industry, the agency believes employment will decline in the logging and sawmilling industries even under its most optimistic scenario. Employment in the sawmilling industry will decline from 203,000 employees in 1984 to 195,000 in 1995 under the best circumstances. It will decline to 183,000 by 1995 under the low economic growth projection.

Most other wood products manufacturing, including plywood and millwork will experience only moderate growth, according to the BLS. Under the most optimistic scenarios, these industries will increase employment 7 percent by 1990, and 9 percent by 1995. However, under the agency's lowest projection, employment growth would be less than one percent. Table 3 details the BLS projections for the wood products.

For the U.S. as a whole, the agency forecasts average annual increases in productivity of at least 1.7 percent. Improved productivity translates into a smaller work force. Among the factors cited for increases in productivity are: a general upswing in the business cycle; higher investments in productive equipment; a more experienced labor force; stable prices; and incorporation of new technologies as facilities expand or as aging capital stock is replaced. Applying 1980's technology to manufacturing will improve product quality while using less labor.

Table 4: BLS projections for the wood products industry show declines in employment for major industry segments, only moderate growth in others.

U.S. EMPLOYMENT PROJECTIONS FOR THE WOOD PRODUCTS INDUSTRY
(Thousands of Employees)

	ACTUAL				PROJECTED					
					1990			1995		
	1959	1969	1979	1984	Low	Moderate	High	Low	Moderate	High
Logging	149	137	149	125	107	111	114	100	107	114
Sawmills, Planing Mills	305	230	237	203	184	192	192	183	190	195
Millwork, Plywood and Other Wood Products	264	610	393	360	366	380	385	363	381	394
Furniture, Fixtures	126	153	176	211	241	247	254	249	262	275

Source: U.S. Bureau of Labor Statistics

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NFPA Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume I **Number 11** **January, 1986**

1985 CONSTRUCTION ACTIVITY SET NEW RECORD

According to the F.W. Dodge survey of construction contracts, the value of 1985 construction totaled $227.7 billion. This was a new high, and represented a third consecutive year of expansion in the construction industry. The housing component of the Dodge data rose 5 percent to $106.8 billion, while nonresidential construction rose 9 percent to $80.8 billion. Public works, utilities and other nonbuilding construction accounted for the balance of $40.1 billion and registered an increase of 12 percent over the previous year.

The Northeast region has experienced the largest increase in construction activity during the past two years. According to the F.W. Dodge statistics, office building gave the region an added boost in 1984, while during this past year housing construction increased dramatically.

The Dodge Index, a measure of construction activity, fell during the fourth quarter (from 169 in October to 157 in December), indicating that some moderation in the pace of new construction is underway. With Gramm-Rudman-Hollings to take effect during the first half of 1986, it is likely that cuts in federal building programs will impact the total level of activity. Approximately $1 billion of cuts in Federal construction programs are anticipated.

Commerce Reports on Residential Alterations and Repairs

In the meantime, expenditures for residential alterations and repair continue at a healthy rate. In a separate Department of Commerce report on residential alterations and repairs during the first half of 1985, the agency reported expenditures of $35.7 billion, up 10 percent from 1984. However, the agency's statistics also show a 17 percent decline in these categories of expenditures between the first and second quarters of the year. Most of the expenditures were made for alterations to existing residences, as opposed to new additions to the structures.

FINALLY, A BREAKTHROUGH WITH JAPAN--TARIFFS LOWERED

This month, the Japanese government announced lower tariffs on certain wood products to take effect beginning in April, 1987. Under the proposal, tariffs on processed wood products would come down by approximately one-third (Table 1). The action affects about $200 million of current U.S. wood products trade with Japan, or 20 percent of total exports. Raw material (logs and chips) comprises the major portion of exports to Japan and are not effected by the latest announcement.

The tariff reductions represent a major milestone in the long negotiating process which began a decade ago, although for some segments of the industry, the announcement fell short of expectations. Softwood plywood producers, in particular, view the

MONTHLY STATISTICAL HIGHLIGHTS

U.S. consumption of softwood lumber was up slightly - 1.6 percent - during the first eleven months of 1985.

New orders for softwood lumber declined 11.5 percent in November from the previous month.

Year-to-date shipments of hardwood lumber were running 5.6 percent ahead of 1984.

Total value of U.S. imports of wood products fell 13.5 percent in November, but is up 5.4 percent for the eleven months.

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Table 1: The scheduled Japanese tariff reductions will affect a number of wood products.

JAPANESE TARIFF REDUCTION SCHEDULE

Product Information			Tariff Reduction Schedule		
Category	Description	Japanese Tariff #	JAN '86	APR '87	APR '88
VENEER	Sheets, < 5mm	44.14-230	15.0%	5.0%	
	Other, < 5mm	44.14-290	15.0%	5.0%	
PLYWOOD	Tongued, Grooved	44.15-111	16.3%	12.5%	10.0%
	Two Ply Softwood	44.15-191	15.0%	12.5%	10.0%
	< 3mm, Hardwood	44.15-192	20.0%	17.5%	15.0%
	3 mm < X < 6 mm, Hardwood	44.15-193	20.0%	17.5%	15.0%
	6mm < X < 12 mm, Hardwood	44.15-194	17.0%	13.5%	10.0%
	> 12 mm, Hardwood	44.15-195	17.0%	13.5%	10.0%
RECONSTITUTED WOOD	Particlebd., Waferbd., OSB	44.18-100	12.0%	8.0%	
UNFINISHED PINE LUMBER		44.05-310	7.0%	4.8%	
FIBER BUILDING BOARD	Includes MDF	44.11-900	5.2%	3.5%	
FINISHED PINE LUMBER	Includes S-P-F	44.13-300	10.0%	8.0%	
LAMINATED LUMBER		44.15-200	20.0%	15.0%	
WOOD BEADINGS, MOLDINGS		44.19-000	7.2%	4.8%	

reductions as too little to materially effect their exports. Nevertheless, trade with Japan should increase $20-$30 million annually, with the biggest increase to occur in softwood and hardwood veneers.

MOSS Talks to Resume

The Japanese also agreed to resume the Market Oriented, Sector Specific (MOSS) talks on wood products tariffs which began in February of last year, once the new tariff reductions are in place. MOSS talks on technical, non-tariff aspects of the trade relationship with Japan will continue without delay.

These talks have resulted in an agreement to jointly promote wood products in Japan. As a start, the U.S. industry with assistance from the Department of Agriculture's Foreign Agricultural Service will construct a demonstration house in Tokyo utilizing the latest in wood-based techniques. The model house is scheduled for completion in May of this year, in time for President Reagan's visit to Japan. The Japanese also agreed to:

- promptly test lodgepole and ponderosa pine for use in laminated lumber. The Japanese had previously rejected similar tests;

Table 2

U.S. EXPORTS OF SOLID WOOD PRODUCTS TO JAPAN
By Major Product Category

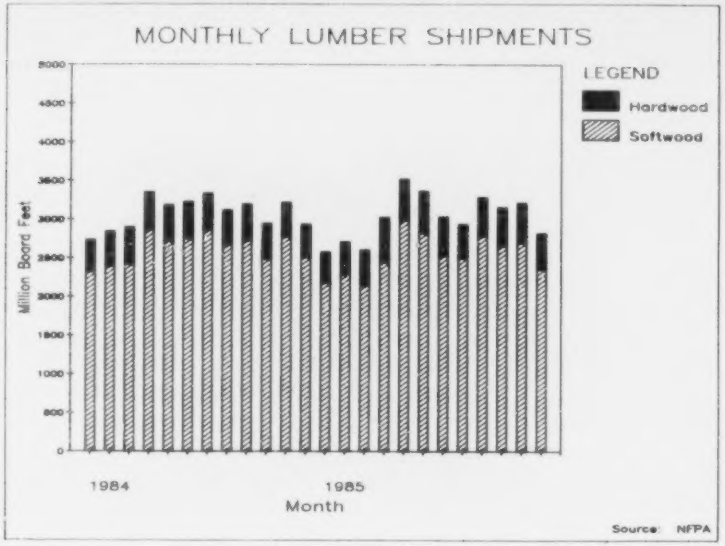
	1984		11 Mos. 1985	
	Volume (In Units)	Value ($000)	Volume (In Units)	Value ($000)
Softwood Logs	1,751,335	631,416	1,753,645	624,095
Hardwood Logs	8,429	9,014	4,663	7,402
Poles, Piles, Posts	512,633	666	123	8
Softwood Lumber	544,744	162,253	518,894	147,610
Hardwood Lumber	50,750	35,515	40,734	154,610
Softwood Veneer	111,359	2,166	54,228	1,569
Hardwood Veneer	3,154	376	11,610	526
Softwood Plywood	6,542	2,001	5,860	1,658
Hardwood Plywood	32	35	863	141
Particleboard	2,747	605	9,036	82

Source: Dept. of Commerce, Foreign Agricultural Service

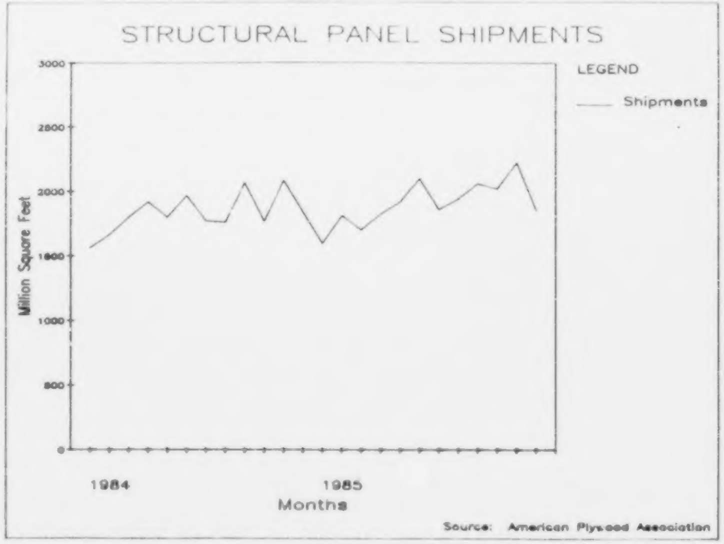
ECONOMICS MONTHLY
January, 1986

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	NOVEMBER 1985			NOVEMBER 30, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	783	766	719	581	1,893
Douglas Fir Region	618	617	654	575	961
Western Pine Region	733	729	734	446	1,332
California Redwood Region	130	132	141	96	380
Other Softwoods	116	115	115	241	304
TOTAL SOFTWOODS	2,380	2,359	2,363	1,939	4,870
% Change - October 1985	-16.8%	-13.0%	-11.5%	0.2%	0.4%
% Change - November 1984	0.1%	-5.5%	-7.2%	-6.4%	3.6%
HARDWOOD LUMBER					
Southern Hardwood Region	240	239	249	237	857
Appalachian Hardwood Reg.	26	26	27	*	*
Other Hardwoods	205	204	213	158	1,065
TOTAL HARDWOODS	471	469	489	395	1,922
% Change - October 1985	-15.6%	-13.5%	-7.2%	5.3%	0.1%
% Change - November 1984	-1.3%	2.2%	5.8%	9.7%	10.0%
TOTAL LUMBER	2,851	2,828	2,852	2,334	6,792
% Change - October 1985	-16.6%	-13.0%	-10.8%	1.0%	0.3%
% Change - November 1984	-0.1%	-4.3%	-5.2%	-4.0%	5.3%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	10,244	NA	5,535	6,190
Maple Flooring (Sq. Ft.)	842	896	1,010	3,115	1,581
STRUCTURAL PANELS	1,898,840	1,858,023	1,693,229	526,254	0
% Change - October 1985	-16.1%	-16.6%	-17.1%	-23.0%	-100.0%
% Change - November 1984	1.3%	0.9%	-5.4%	-19.6%	-100.0%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

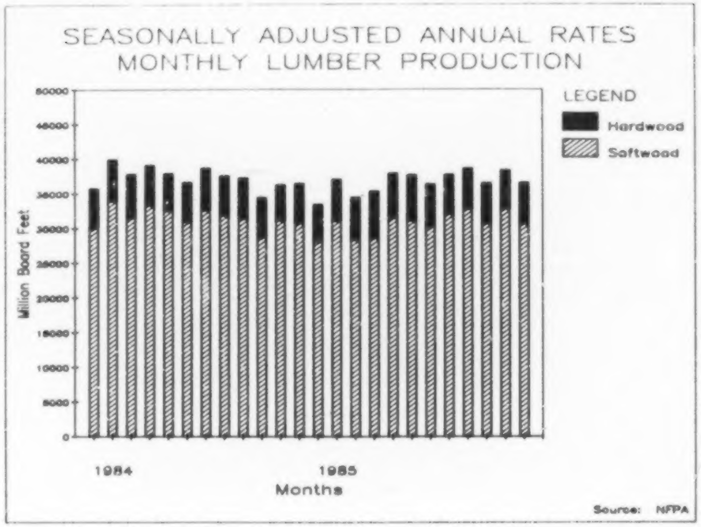
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	11 mos.'85	11 mos.'84	11 mos.'85	11 mos.'84	11 mos.'85	11 mos.'84
	(Million Board Feet)					
TOTAL LUMBER	34,462	-1.2%	34,025	-1.6%	34,112	-0.6%
TOTAL SOFTWOOD	28,425	-2.4%	28,149	-3.0%	28,213	-2.1%
TOTAL HARDWOOD	6,037	4.6%	5,876	5.6%	5,899	7.2%

SEASONALLY ADJUSTED ANNUAL RATES

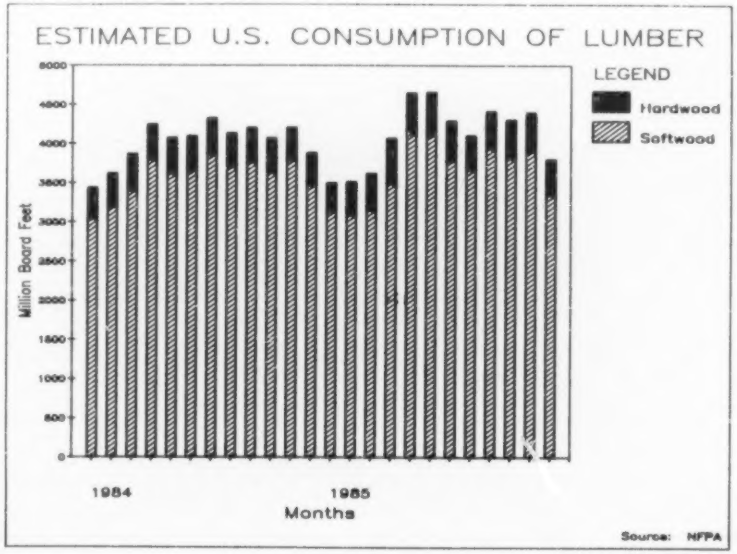
	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	Nov. '85	Oct. '85	Nov. '84	Nov. '85	Oct. '85	Nov. '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	9,911	-7.5%	-3.3%	10,035	-5.7%	-5.3%
Douglas Fir	7,685	-14.9%	2.8%	7,688	-5.8%	-6.7%
Western Pine	9,784	0.2%	0.5%	9,774	2.7%	-6.8%
Calif. Redwood	1,757	0.7%	7.4%	1,798	21.1%	7.3%
Other Softwoods	1,478	-6.2%	0.0%	1,485	-1.9%	-5.0%
TOTAL SOFTWOODS	30,615	-6.7%	0.1%	30,781	-1.7%	-5.5%
TOTAL HARDWOODS	6,013	1.6%	-1.3%	5,881	-2.1%	2.2%
TOTAL LUMBER	36,628	-5.5%	-0.1%	36,662	-1.8%	-4.3%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	Nov. '85	Oct. '85	Nov. '84	11 mos.'85	11 mos.'84
	(Million Board Feet)				
Total Consumption	3,810	-14.2%	-2.6%	46,206	2.4%
Softwood Consumption	3,348	-14.4%	-3.2%	40,364	1.6%
Hardwood Consumption	462	-12.7%	2.0%	5,842	8.7%


SEASONALLY ADJUSTED ANNUAL RATES
MONTHLY LUMBER PRODUCTION

Source: NFPA

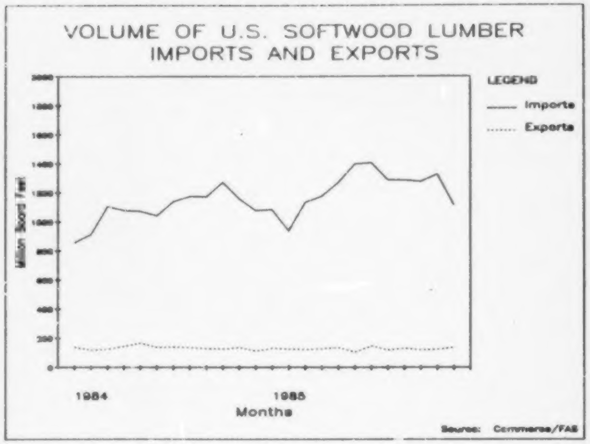

ESTIMATED U.S. CONSUMPTION OF LUMBER

Source: NFPA

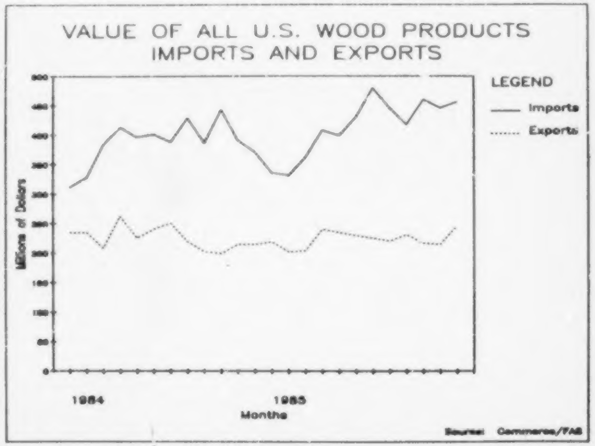
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Nov. '85	11 mo. 1985	% Change From Oct. '85	% Change From 11 mo. 1984	Nov. '85	11 mo. 1985	% Change From Oct. '85	% Change From 11 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	126.2	1,378.0	1.7%	-6.2%	45,224	455,423	13.9%	-7.1%
To Canada	MMBF	22.6	280.0	-23.3%	-12.3%	5,519	69,873	-21.3%	-7.3%
SOFTWOOD LOGS	MMBF	324.9	3,457.2	6.9%	12.6%	105,528	1,086,482	12.8%	9.7%
SOFTWOOD PLYWOOD	MMSF 3/8"	40.6	275.0	175.6%	-16.0%	9,337	64,895	155.0%	-15.0%
HARDWOOD LUMBER	MMBF	35.1	368.7	-6.3%	-15.3%	20,995	228,911	-11.7%	-12.8%
HARDWOOD LOGS	MMBF	8.4	102.5	20.0%	-48.2%	7,929	82,022	51.9%	-16.5%
HARDWOOD VENEER	MMSFsurf	105.2	748.2	47.8%	-21.0%	7,256	58,503	33.5%	-24.1%
PARTICLEBOARD	MMSF 3/4"	13.7	108.4	-1.6%	8.3%	2,748	21,638	3.5%	-11.5%
ALL OTHER		NA	NA	NA	NA	44,218	446,169	14.0%	4.4%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	244,254	2,459,935	14.1%	-0.4%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,115.3	13,593.4	-15.8%	11.5%	218,134	2,695,819	-17.8%	9.2%
From Canada	MMBF	1,099.6	13,509.5	-16.6%	11.2%	214,248	2,677,729	-18.8%	9.0%
SOFTWOOD LOGS	MMBF	9.6	69.3	129.8%	-38.2%	1,819	16,411	130.3%	18.7%
SOFTWOOD PLYWOOD	MMSF 3/8"	6.4	80.3	-32.1%	15.7%	2,137	19,827	11.4%	27.8%
HARDWOOD LUMBER	MMBF	28.2	340.6	12.1%	12.5%	11,939	168,583	-2.6%	4.4%
HARDWOOD LOGS	MMBF	1.7	25.3	-66.9%	-10.0%	436	3,390	38.9%	-19.4%
HARDWOOD VENEER	MMSFsurf	125.9	1,303.5	2.6%	-6.5%	8,760	94,242	1.0%	-18.4%
HARDWOOD PLYWOOD	MMSF 3/8"	253.0	3,291.5	-34.5%	16.0%	32,220	409,147	-22.5%	2.0%
HARDBOARD	MMSFsurf	70.3	714.5	-5.0%	212.5%	4,355	47,859	.0%	6.2%
PARTICLEBOARD	MSF 3/4"	51.5	523.3	-3.6%	9.5%	13,326	130,278	-7.3%	7.3%
ALL OTHER		NA	NA	NA	NA	92,176	975,473	-4.0%	-0.2%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	385,583	4,564,895	-13.5%	5.4%

Note: Volume total is not possible because the products are in different units of measure.



VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS



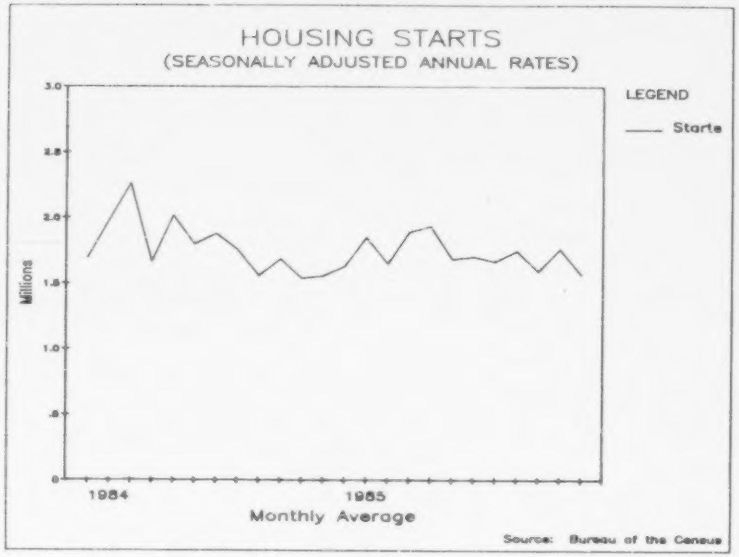
VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

CONSTRUCTION AND HOUSING STATISTICS

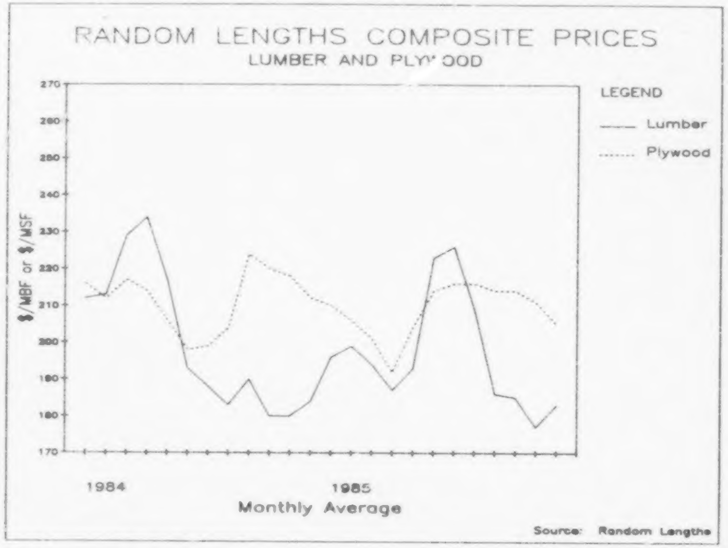
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Nov. '85	Oct. '85	Nov. '84	11 mo.'85	11 mo.'84
	(Billions of Dollars)				
VALUE OF ALL NEW					
CONSTRUCTION PUT-IN-PLACE	30.3	-5.6%	10.2%	315.8	10.3%
Private	24.7	-4.6%	9.3%	257.6	9.7%
Residential	12.9	-7.2%	7.5%	137.1	7.9%
Nonresidential & Other	11.8	-1.7%	11.3%	120.5	11.9%
Public	5.6	-9.7%	14.3%	58.2	12.7%
	Nov.'85	Oct. '85	Nov. '84	11 mo.'85	11 mo.'84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	120.9	-29.7%	22.1%	1,619.9	-7.6%
New Private Starts	120.9	-30.1%	22.2%	1,732.7	-0.8%
Seas. Adj. Annual Rate	1566	-11.6%	-3.9%		
One-Family Housing Starts	72.0	-31.5%	14.6%	1,070.5	-1.1%
Proportion of Total	59.6%			66.1%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	20,900	-24.5%	-4.1%	266,700	-4.2%

EMPLOYMENT STATISTICS

		----% Change From---	
	Nov. '85	Oct. '85	Nov. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	98,739	0.2%	3.2%
All Manufacturing Industries	19,375	0.2%	-2.2%
Lumber and Wood Products	712	0.6%	-0.7%
Furniture and Fixtures	496	0.0%	0.2%


HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census

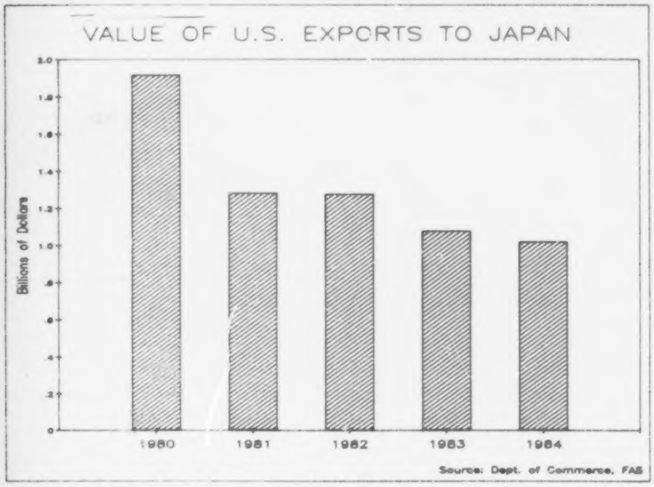

RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Lengths

- establish product standards for structural panels, such as oriented strand board and waferboard;
- review fire and building codes to identify possible measures which could stimulate greater use of wood products;
- establish criteria and procedures which will allow foreign experts to participate in drafting standards.

The Japanese action provides a lift to the U.S. industry's market expansion hopes. Japan is the largest customer for U.S. wood products. However, the value of exports has fallen in recent years because of the overvalued dollar and restrictive Japanese market (Table 2; Figure 1). Up to $500 million of additional export sales are possible if all Japanese tariffs were removed.

Figure 1: The Japanese tariff reductions are expected to boost export trade to the U.S.' largest export market.



VALUE OF U.S. EXPORTS TO JAPAN

Source: Dept. of Commerce, FAS

GOVERNMENT REVISES GNP DATA

The Department of Commerce has recently revised its data series on the Gross National Product (GNP). The agency undertakes a major overhaul of the data about once every ten years to bring the methodologies up to date and to make the base year reference points more current. The GNP is the most frequently looked at measure of general economic performance in the American economy. It measures in real terms changes which occur in the total output of the nation's goods and services. Up until this year, the GNP was reported in 1972 dollars. It will now be adjusted to 1982 dollars. This means that the level of the 1985 estimate of the GNP, previously reported at $1,680 in 1972 dollars, is now restated to $3,574 billion in constant 1982 dollars.

At first glance, this change appears to be a mere statistical gimmick. However, the pre energy crisis, low dollar economy of 1972 is markedly different from conditions, trade and spending patterns of the eighties. As a result, the GNP price deflator will now bear closer resemblance to some of the fixed index measures of inflation, such as the Consumer Price Index (CPI).

The adjustment in the base year for the GNP effects numerous other measures of the economy. For example, the GNP price deflator index, which had grown 230 percent over its 1972 mark by 1985, is estimated at 112 percent of the 1982 level and will now be reported on that basis.

A number of other revisions have also been incorporated into the Commerce measures which change the significance of the reported data. The Commerce Department has revised its methods for measuring federal government purchases of goods and services, and its methods of collecting and using trade data. Import and export statistics can be rolled into the total numbers in a much more timely manner. The agency has also developed a method to estimate the effects of the underground economy (unreported income). This latter change has the effect of adding to the reported National Income, and therefore increases the reported savings rate.

INDUSTRY HEALTH -- THE DOLDRUMS CARRY OVER TO THE TOTAL CORPORATE TAXES PAID BY THE LUMBER AND WOOD PRODUCTS INDUSTRY

The IRS annually publishes information about corporate and individual income tax returns in its Statistics of Income (SOI) series. The most recent data available on taxes paid by corporations are from the 1982 returns. Table 3 shows total taxes paid by companies in the lumber and wood products sector during the period 1978 through 1982.

Based on the SOI information, the lumber and wood products industry paid approximately $190 million in Federal corporate income taxes in 1982, a decline of over $700 million when compared with 1978. In real 1982 dollars, the decrease was even more dramatic, approximately 85 percent. The decline in aggregate corporate taxes paid provides yet another measure of the declining health of the industry, mirroring the fall in earnings that has taken place in that time period.

Many in the timber industry believe that the solid wood industry suffered as much during the recession as it did during the Great Depression. Indeed, only 49% of the companies in the lumber and wood products sector filed returns with net income, and the real value of solid wood shipments in 1982 was only 57% of the value of shipments in 1978.

The industry's value of shipments increased substantially in 1983 in nominal terms, but still remained below the peak years in the late 70's when adjusted for constant dollars. NFPA estimates that the value of shipments in 1984 and 1985 also remained relatively constant (Table 4). Poor earnings performance has also been widely reported. However, we would expect to see an upturn in the taxes paid by the lumber and wood products industry in 1983 - 1985, when data for those years are published.

Table 3: Taxes paid by the solid wood industry fell dramatically between 1978 and 1982.

Value of Industry Shipments
Lumber and Wood Products

(Million Dollars)

	Nominal $	Constant 1982 $
1978	$46,522.4	$64,435.5
1979	49,854.1	63,427.6
1980	47,193.1	55,067.8
1981	46,806.9	49,794.6
1982	42,934.9	42,934.9
1983	51,304.6	49,378.8
1984**(E)**	49,500.0	45,790.9
1985**(E)**	50,000.0	44,762.8

Source: Bureau of Labor Statistics; 1984-85 NFPA Estimates

The Senate will be taking up tax legislation very soon, and is contemplating action that could seriously affect this already precarious industry situation. A number of provisions in the Code which directly impact cash flow, investment, and long-term forest management are under consideration for elimination. Any changes in the current code will likely have a further impact on the already lackluster performance of the lumber and wood products industry.

Table 4: When adjusted into real 1982 dollars, the value of industry shipments document the poor performance of the industry.

TAXES PAID BY THE SOLID WOOD INDUSTRY

	1978	1979	1980	1981	1982
Total Number of Returns	12,823	13,182	13,567	15,371	14,203
Number of Returns with Net Income	10,549	9,535	7,232	7,450	6,951
Total Receipts ($000)	$49,680,047	$55,392,211	$54,263,309	$53,368,452	$49,407,395
Total Deductions ($000)	46,380,601	52,229,461	53,336,023	53,736,635	49,917,554
Net Income (Less Deficit) ($000)	3,338,492	3,276,562	985,593	(30,2001)	(484,936)
Net Taxable Income ($000)	3,177,996	3,391,886	1,526,547	909,561	587,346
Total Income Tax ($000)	1,191,815	1,152,532	543,154	338,345	227,135
Credits ($000)	283,231	382,274	205,418	98,727	36,506
Net Tax, Nominal Terms ($000)	908,584	770,258	337,736	239,618	190,629
Net Tax, 1982 Dollars ($000)	$1,252,640	$977,457	$392,555	$254,049	$190,629

Source: IRS Statistics of Income

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Volume I Number 12 February, 1986

GRAMM RUDMAN HOLLINGS -- EVERY SECTOR OF THE ECONOMY WILL BE EFFECTED

The federal budget deficit for the fiscal year ending September 30, 1985 was a mind-boggling $212 billion dollars. Congress and the Administration agreed to bring the federal deficit under control during the next five years through the Gramm-Rudman-Hollings law. In brief, the law places annual ceilings on the permissible deficit of $171.9 billion in fiscal year 1986 (FY86), $144 billion in FY87, $108 billion in FY88, $72 billion in FY89, $36 billion in FY90 and $0 (zero) in FY91. The law is being challenged in the courts, but whatever the judicial outcome, Gramm-Rudman-Hollings has put Congress on record for setting specific objectives to bring the federal budget under control.

Gramm-Rudman-Hollings leaves the determination of the required reductions to the General Accounting Office (GAO) based on expected economic conditions and federal spending. Each year the GAO projects the federal deficit using data and forecasts submitted by the Congressional Budget Office and the Office of Management and Budget. If the GAO projections exceed the ceilings specified in the law, then the President sends to Congress a "sequester order" detailing across the board cuts in "programs, projects and activities" not specifically exempt. One half of spending reductions must come from defense programs, one-half from non-defense areas. For fiscal year 1986 there is an automatic across the board reduction of 4.3 percent or $11.7 billion. These reductions began on March 1, 1986.

The forest products industry is impacted in several areas. Directly effected is the Forest Service budget, including the timber sales program, research, state and private forestry and construction programs. A total of $71.93 million will be reduced from the Forest Service budget for FY86. The cuts for the current fiscal year are not likely (nor designed) to cause any major changes in programs or policy direction. The Forest Service has said that the cuts can be absorbed in travel and through attrition and retirements. Western producers, most reliant on public timber sales, are pressing the Forest Service to increase efficiencies and not reduce sales volumes.

Indirectly, the forest industry is also impacted through reductions in government construction programs, subsidized mortgage and other housing related programs. Most of these impacts will be minimal in FY86, but may become quite significant next year and later on. Congress recently passed an emergency measure to bypass Gramm-Rudman-Hollings on VA backed mortgages, raising the ceiling to $18.2 billion. Otherwise, the program would have run out of funding on March 1. Many programs will be severely diluted in FY87 if Congress fails to come to grips with the deficit and Gramm-Rudman-Hollings prevails. Even if automatic reductions are not triggered, the deficit-reducing atmosphere will probably cause program reductions.

Gramm-Rudman-Hollings may have some genuinely positive impacts on business. Extensive government borrowing is a major factor determining prevailing interest rates. A decrease in government borrowing should put downward pressure on interest rates, keeping business borrowing costs lower. Lower interest rates will help reduce the deficit by slowing the pace of interest payments on the national debt. In turn, lower rates make housing more attractive, possibly making government housing and mortgage programs less necessary. In addition, lower interest rates should strengthen foreign currencies vis a vis the dollar by closing the interest rate gap between the U.S. and other countries. United States exports, including wood products, should get a boost.

In the main, theoretical economics must confront political reality. The reality is that Gramm-Rudman-Hollings will

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force Congress to make the difficult choices on tax increases versus spending cuts. What originally began as tax reform may evolve into an integrated package of spending cuts and tax increases designed to comply with Gramm-Rudman-Hollings.

THE YEAR -- 1985 -- IN REVIEW

·U.S. softwood lumber production totaled an estimated 30,690 million board feet, down 1.6 percent from 1984. Production was down 8.5 percent in the Douglas Fir region, but up slightly in other regions.

·Softwood lumber consumption reached a new record-setting level of 43,657 million board feet. Imports from Canada accounted for 33.2 percent of this total. The level of imports was up 9.7 percent over 1984; the market share increase was the highest one year increase since 1977.

·Hardwood lumber production continued to benefit from furniture markets experiencing the downstream effect of housing and commercial construction booms. Hardwood lumber production rose 4.2 percent over 1984. However, exports of hardwood lumber fell 14.9 percent. Exports of hardwood logs were up nearly 3 percent in volume, 15 percent in value.

·Structural panels also experienced a record level of demand in 1985. Production of structural panels was estimated at 23,165 million square feet. Of this amount, oriented strand board and waferboard accounted for approximately 9 percent.

·Indicators of demand during 1985 reflected extremely active markets. New housing starts, which account for 50 percent of softwood lumber consumption, measured 1.74 million units in 1985. Housing starts have been consistently at the 1.73 - 1.75 level for three years. The three year average of 1.74 is the highest for a three year period since 1977 - 1979.

·The value of nonresidential construction also continued at an impressive pace during 1985. The Commerce Department reported nonresidential construction at $128.3 billion, 8.9 percent higher than in 1984.

·Despite high demand and generally healthy conditions in the service and consuming ends of the economy, lumber producers suffered a fourth year of depressed earnings. The average Random Lengths Composite Price for softwood framing lumber for 1985 was $194. This compares with $199 in 1984 and $221 in 1983. During the 1982 recession, the Composite Price averaged $169.

CANADIAN IMPORTS REACH NEW HIGH -- U.S. INDUSTRY PURSUES REMEDIES

Imports of softwood lumber from Canada reached 14,507.6 million board feet, accounting for 33.2 percent of U.S. consumption. This represents the largest one year increase in market share since 1977. The supplemental graph (Figure 1) displays the trend in imports and market share during the past decade.

PROPOSED REDUCTIONS IN NATIONAL FOREST TIMBER SALES LEVEL MAY FURTHER SQUEEZE WESTERN PRODUCERS

The Administration's FY87 budget calls for a 12 percent reduction in the federal government's timber sale program to ten billion board feet. If unchanged, this would be the lowest authorized level since 1961. With demand for wood products expected to continue at historically high levels during 1986 and 1987, producers dependent on federal timber will find inadequate supply to be competitive in the marketplace. A supplemental graph (Figure 2) details the volume of timber annually sold and harvested from National Forests since 1975.

WE ARE MOVING!

Effective April 7, NFPA's new address is:

National Forest Products
Association
1250 Connecticut AV, NW
Suite 200
Washington, DC 20036

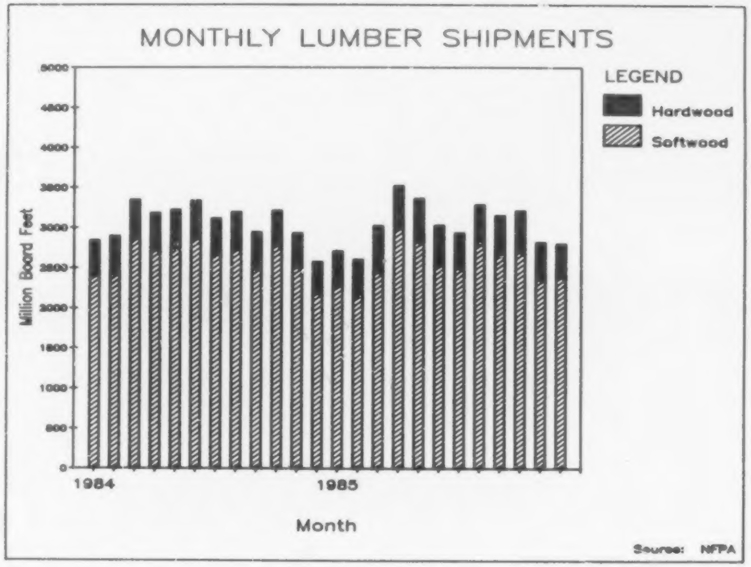
The new phone number is:

(202) 463-2700

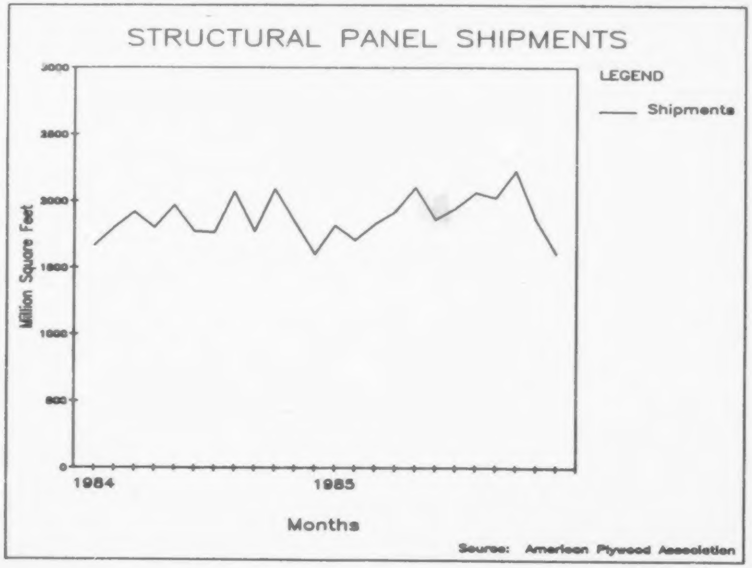
ECONOMICS MONTHLY
February, 1986

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	DECEMBER 1985			DECEMBER 31, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER			(Million Board Feet)		
Southern Pine Region	761	791	829	595	1,863
Douglas Fir Region	563	615	568	528	909
Western Pine Region	700	737	724	433	1,295
California Redwood Region	100	125	124	95	355
Other Softwoods	109	116	115	241	297
TOTAL SOFTWOODS	2,233	2,384	2,360	1,892	4,719
% Change - November 1985	-6.9%	0.3%	-0.1%	-1.3%	-3.1%
% Change - December 1984	8.2%	9.8%	19.4%	0.9%	2.7%
HARDWOOD LUMBER					
Southern Hardwood Region	201	205	195	227	853
Appalachian Hardwood Reg.	34	35	33	*	*
Other Hardwoods	181	185	175	146	1,060
TOTAL HARDWOODS	416	425	403	373	1,913
% Change - November 1985	-15.4%	-13.3%	-21.0%	-5.6%	-0.5%
% Change - December 1984	-6.3%	-1.4%	-9.0%	0.3%	8.6%
TOTAL LUMBER	2,649	2,809	2,763	2,265	6,632
% Change - November 1985	-8.3%	-2.1%	-3.8%	-2.0%	-2.4%
% Change - December 1984	5.6%	7.9%	14.2%	0.8%	4.4%
* Included in Other Hardwoods					
FLOORING			(Thousand Feet)		
Oak Flooring (Bd. Ft.)	NA	8,688	NA	5,535	6,190
Maple Flooring (Sq. Ft.)	672	694	744	3,446	1,630
STRUCTURAL PANELS	1,679,527	1,604,521	1,671,991	579,306	434,000
% Change - November 1985	-11.5%	-13.6%	-1.3%	10.1%	31.1%
% Change - December 1984	2.1%	0.3%	-0.2%	34.6%	19.3%


MONTHLY LUMBER SHIPMENTS

Source: NFPA


STRUCTURAL PANEL SHIPMENTS

Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

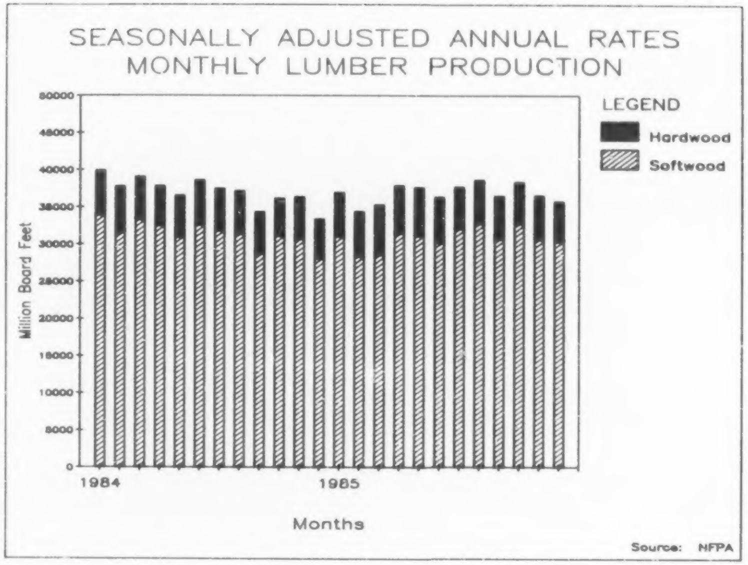
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	12 mos.'85	12 mos.'84	12 mos.'85	12 mos.'84	12 mos.'85	12 mos.'84
	(Million Board Feet)					
TOTAL LUMBER	37,164	-0.6%	36,887	-0.8%	36,905	0.5%
TOTAL SOFTWOOD	30,690	-1.6%	30,565	-2.0%	30,582	-0.7%
TOTAL HARDWOOD	6,474	4.2%	6,322	5.5%	6,323	6.3%

SEASONALLY ADJUSTED ANNUAL RATES

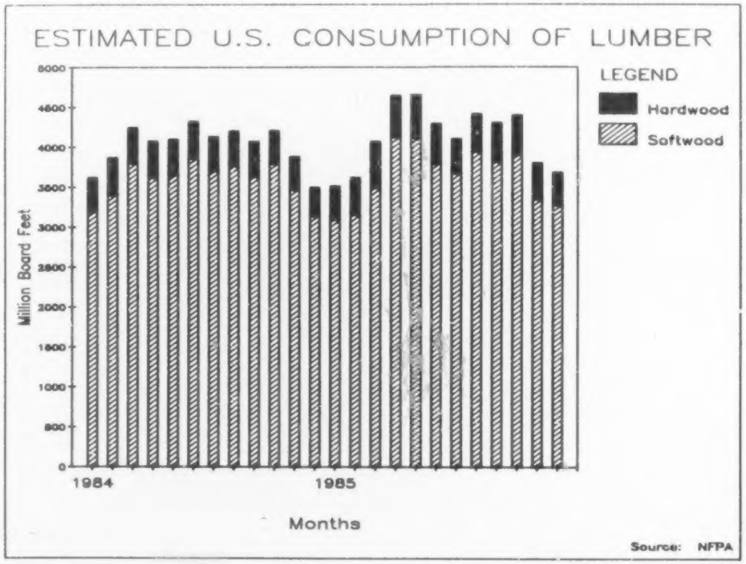
	PRODUCTION			SHIPMENTS		
		--% Change From--			--% Change From	
LUMBER REGION	Dec. '85	Nov. '85	Dec.' '84	Dec. '85	Nov. '85	Dec.' '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	9,756	-3.7%	-6.7%	10,477	2.0%	0.0%
Douglas Fir	7,911	2.9%	19.5%	8,454	10.0%	20.1%
Western Pine	9,836	0.5%	21.7%	10,604	8.5%	16.4%
Calif. Redwood	1,427	-18.8%	-2.0%	1,812	0.8%	-3.8%
Other Softwoods	1,437	-3.6%	9.0%	1,540	2.8%	9.4%
TOTAL SOFTWOODS	30,368	-1.5%	8.7%	32,886	6.0%	9.9%
TOTAL HARDWOODS	5,456	-13.1%	-6.3%	5,686	-7.5%	-1.4%
TOTAL LUMBER	35,823	-3.5%	6.1%	38,572	3.9%	8.1%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	Dec. '85	Nov. '85	Dec.' '84	Dec. '85	Nov. '85
	(Million Board Feet)				
Total Consumption	3,692	-3.8%	4.1%	49,941	2.6%
Softwood Consumption	3,272	-2.5%	4.7%	43,657	1.9%
Hardwood Consumption	421	-12.9%	-0.4%	6,283	8.4%


SEASONALLY ADJUSTED ANNUAL RATES
MONTHLY LUMBER PRODUCTION

Source: NFPA

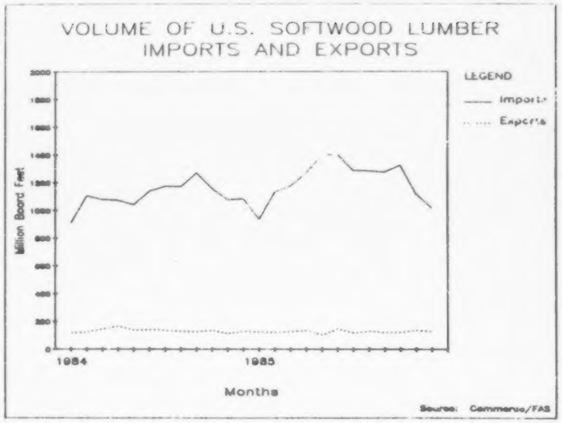

ESTIMATED U.S. CONSUMPTION OF LUMBER

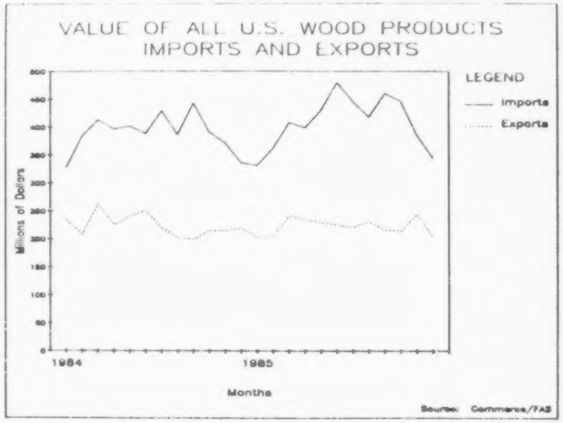
Source: NFPA

INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Dec. '85	12 mo. 1985	% Change From Nov. '85	% Change From 12 mo. 1984	Dec. '85	12 mo. 1985	% Change From Nov. '85	% Change From 12 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	126.6	1,515.4	-7.1%	-5.2%	40,707	496,270	-10.0%	-7.0%
To Canada	MMBF	18.8	298.9	-16.7%	-11.0%	4,478	74,351	-18.9%	-6.5%
SOFTWOOD LOGS	MMBF	274.8	3,732.0	-15.4%	10.8%	82,651	1,169,133	-21.7%	8.3%
SOFTWOOD PLYWOOD	MMSF 3/8"	45.5	321.6	12.1%	-13.2%	10,047	75,220	7.6%	-13.1%
HARDWOOD LUMBER	MMBF	28.3	397.1	-19.3%	-14.9%	18,680	247,591	-11.0%	-12.2%
HARDWOOD LOGS	MMBF	8.7	111.2	2.9%	-49.7%	9,126	91,148	15.1%	-14.4%
HARDWOOD VENEER	MMSFsurf	44.6	792.7	-57.7%	-21.9%	3,745	62,248	-48.4%	-24.2%
PARTICLEBOARD	MMSF 3/4"	10.4	118.8	-24.2%	9.6%	2,530	24,168	-7.9%	-7.7%
ALL OTHER		NA	NA	NA	NA	35,153	481,182	-20.5%	2.9%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	203,352	2,663,565	-16.7%	-0.9%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,014.4	14,607.8	-9.1%	10.1%	194,831	2,890,650	-10.7%	8.2%
From Canada	MMBF	998.2	14,507.6	-9.2%	9.7%	193,135	2,870,864	-9.9%	8.0%
SOFTWOOD LOGS	MMBF	1.5	70.8	-84.1%	-39.4%	443	16,854	-75.6%	15.2%
SOFTWOOD PLYWOOD	MMSF 3/8"	7.0	87.3	9.3%	18.8%	1,962	21,789	-8.2%	32.2%
HARDWOOD LUMBER	MMBF	23.0	363.6	-18.3%	10.9%	11,707	180,290	-1.9%	4.3%
HARDWOOD LOGS	MMBF	3.1	28.4	83.5%	-5.6%	386	3,776	-11.5%	-20.3%
HARDWOOD VENEER	MMSFsurf	94.5	1,398.0	-25.0%	-7.0%	7,540	101,782	-13.9%	-17.3%
HARDWOOD PLYWOOD	MMSF 3/8"	230.5	3,522.0	-8.9%	18.1%	31,695	440,842	-1.6%	4.5%
HARDBOARD	MMSFsurf	67.9	782.4	-3.4%	242.2%	4,133	51,992	-5.1%	15.3%
PARTICLEBOARD	MSF 3/4"	42.0	565.2	-18.5%	9.1%	11,424	141,702	-14.3%	7.5%
ALL OTHER		NA	NA	NA	NA	80,369	1,055,841	-12.8%	-0.2%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	344,685	4,909,580	-10.6%	5.2%

Note: Volume total is not possible because the products are in different units of measure.



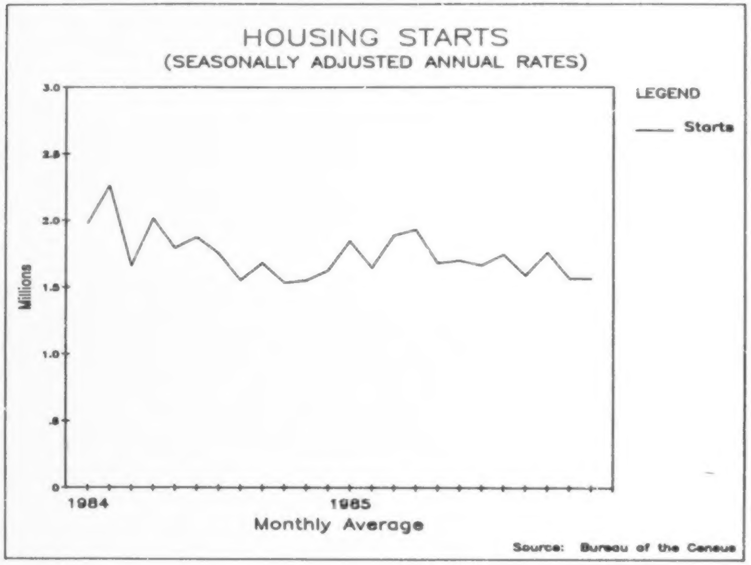


CONSTRUCTION AND HOUSING STATISTICS

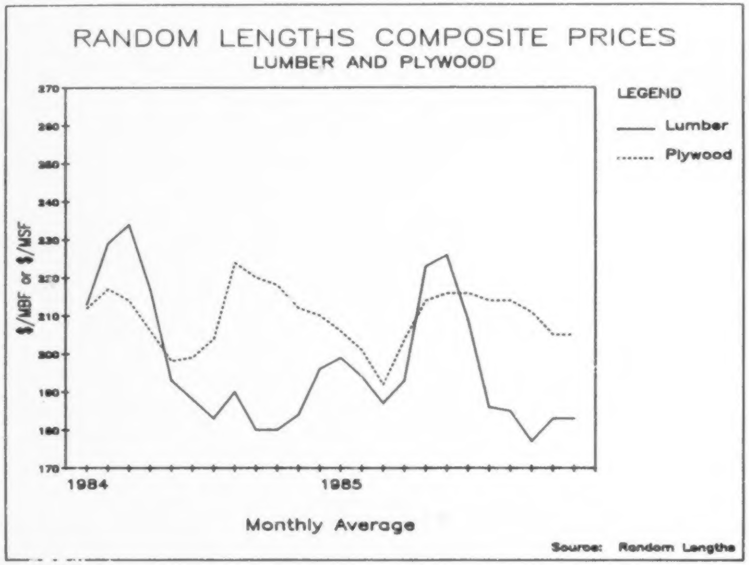
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Nov. '85	Oct. '85	Nov. '84	11 mo.'85	11 mo.'84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	30.3	-5.6%	10.2%	315.8	10.3%
Private	24.7	-4.6%	9.3%	257.6	9.7%
Residential	12.9	-7.2%	7.5%	137.1	7.9%
Nonresidential & Other	11.8	-1.7%	11.3%	120.5	11.9%
Public	5.6	-9.7%	14.3%	58.2	12.7%
	Nov.'85	Oct. '85	Nov. '84	11 mo.'85	11 mo.'84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	120.9	-29.7%	22.1%	1,619.9	-7.6%
New Private Starts	120.9	-30.1%	22.2%	1,732.7	-0.8%
Seas. Adj. Annual Rate	1566	-11.6%	-3.9%		
One-Family Housing Starts	72.0	-31.5%	14.6%	1,070.5	-1.1%
Proportion of Total	59.6%			66.1%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	20,900	-24.5%	-4.1%	266,700	-4.2%

EMPLOYMENT STATISTICS

		----% Change From---	
	Nov. '85	Oct. '85	Nov. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	98,739	0.2%	3.2%
All Manufacturing Industries	19,375	0.2%	-2.2%
Lumber and Wood Products	712	0.6%	-0.7%
Furniture and Fixtures	496	0.0%	0.2%


HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census


RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Lengths

03/03/86

TABLE 1

ESTIMATED TOTAL REGIONAL LUMBER PRODUCTION, SHIPMENTS, AND NEW ORDERS

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	APPALACHIAN HARDWOOD	OTHER HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
PRODUCTION											
1975	6,967	7,134	8,445	1,690	1,475	25,711	2,761	1,109	2,002	5,872	31,583
1976	7,893	8,322	9,789	2,001	1,688	29,693	3,037	1,173	2,217	6,427	36,120
1977	8,879	8,796	10,309	2,000	1,753	31,737	3,073	1,211	2,417	6,701	38,438
1978	9,231	8,845	10,033	1,902	2,046	32,057	3,258	1,233	2,540	7,031	39,088
1979	9,283	8,427	9,780	1,818	2,124	31,432	3,462	1,263	2,589	7,314	38,746
1980	8,217	6,815	7,613	1,589	2,012	26,246	3,341	1,221	2,553	7,115	33,361
1981	8,415	6,270	7,147	1,452	1,392	24,676	3,374	1,237	1,641	6,252	30,928
1982	8,754	5,743	6,681	1,300	1,309	23,787	2,061	602	2,398	5,062	28,849
1983*											
1ST QUARTER	2,444	2,025	1,933	419	373	7,194	488	204	596	1,288	8,482
2ND QUARTER	2,658	2,094	2,187	405	402	7,746	500	184	590	1,274	9,020
3RD QUARTER	2,636	1,938	2,262	382	395	7,613	632	207	725	1,564	9,177
4TH QUARTER	2,443	1,877	2,106	374	373	7,173	625	190	703	1,518	8,691
TOTAL YEAR	10,181	7,934	8,488	1,580	1,543	29,726	2,245	785	2,614	5,644	35,370
1984*											
1ST QUARTER	2,620	2,337	2,252	435	391	8,035	660	220	677	1,557	9,592
2ND QUARTER	2,787	2,264	2,429	444	404	8,328	665	245	701	1,611	9,939
3RD QUARTER	2,692	1,985	2,213	407	373	7,670	714	199	702	1,615	9,285
4TH QUARTER	2,575	1,743	2,098	378	347	7,141	662	147	624	1,433	8,574
TOTAL YEAR	10,674	8,329	8,992	1,664	1,515	31,174	2,701	811	2,704	6,216	37,390
1985*											
1ST QUARTER	2,485	1,862	1,990	451	346	7,134	700	211	701	1,612	8,746
2ND QUARTER	2,914	1,906	2,382	454	391	8,047	770	239	777	1,786	9,833
3RD QUARTER	2,735	1,927	2,514	448	390	8,014	724	185	701	1,610	9,624
4TH QUARTER	2,517	1,925	2,299	389	365	7,495	700	128	638	1,466	8,961
TOTAL YEAR	10,651	7,620	9,185	1,742	1,492	30,690	2,894	763	2,817	6,474	37,164
SHIPMENTS											
1975	7,142	7,196	8,519	1,625	1,488	25,970	2,727	1,095	1,977	5,799	31,769
1976	7,782	8,293	9,744	2,044	1,679	29,542	3,032	1,171	2,214	6,417	35,959
1977	8,932	8,781	10,295	2,075	1,759	31,842	3,114	1,225	2,450	6,789	38,631
1978	9,226	8,906	10,067	1,884	2,051	32,134	3,248	1,230	2,530	7,008	39,142
1979	9,255	8,412	9,696	1,760	2,111	31,234	3,326	1,216	2,487	7,029	38,263
1980	8,018	6,821	7,807	1,590	2,012	26,248	3,119	1,142	2,387	6,648	32,896
1981	8,388	6,270	7,183	1,501	1,395	24,737	3,313	1,182	1,602	6,097	30,834
1982	8,464	5,793	6,775	1,349	1,303	23,684	2,127	634	2,488	5,249	28,935
1983*											
1ST QUARTER	2,442	1,827	1,830	364	354	6,817	527	227	650	1,404	8,221
2ND QUARTER	2,695	2,154	2,187	419	409	7,864	554	217	665	1,436	9,300
3RD QUARTER	2,631	1,925	2,151	410	391	7,508	626	205	716	1,547	9,055
4TH QUARTER	2,446	1,896	2,096	389	374	7,201	605	180	677	1,462	8,663
TOTAL YEAR	10,214	7,802	8,264	1,582	1,528	29,390	2,312	829	2,708	5,849	35,239
1984*											
1ST QUARTER	2,527	2,196	2,126	421	372	7,642	658	218	673	1,549	9,191
2ND QUARTER	2,780	2,263	2,395	440	402	8,280	653	238	686	1,577	9,857
3RD QUARTER	2,718	2,038	2,284	415	381	7,836	671	180	654	1,505	9,341
4TH QUARTER	2,549	1,912	2,209	397	361	7,428	632	138	593	1,363	8,791
TOTAL YEAR	10,574	8,409	9,014	1,673	1,516	31,186	2,614	774	2,606	5,994	37,180
1985*											
1ST QUARTER	2,418	1,807	1,899	385	332	6,841	698	210	699	1,607	8,448
2ND QUARTER	2,972	2,012	2,422	495	403	8,304	747	226	750	1,723	10,027
3RD QUARTER	2,705	1,890	2,525	438	386	7,944	695	172	668	1,535	9,479
4TH QUARTER	2,501	1,916	2,301	394	364	7,476	696	127	634	1,457	8,933
TOTAL YEAR	10,596	7,625	9,147	1,712	1,485	30,565	2,836	735	2,751	6,322	36,887
NEW ORDERS											
1975	7,251	7,430	8,665	1,702	1,583	26,631	2,745	1,104	1,991	5,840	32,471
1976	7,779	8,377	9,760	2,067	1,687	29,670	3,015	1,165	2,200	6,380	36,050
1977	8,970	8,712	10,331	2,119	1,762	31,894	3,163	1,244	2,488	6,895	38,789
1978	9,273	8,894	9,946	1,847	2,043	32,003	3,288	1,239	2,560	7,087	39,090
1979	9,273	8,388	9,630	1,664	2,098	31,053	3,250	1,184	2,429	6,863	37,916
1980	7,964	6,791	7,730	1,563	1,996	26,044	3,060	1,118	2,338	6,516	32,560
1981	8,433	6,200	7,076	1,501	1,387	24,597	3,341	1,198	1,617	6,156	30,753
1982	8,510	5,976	6,880	1,388	1,325	24,079	2,123	650	2,495	5,268	29,335
1983*											
1ST QUARTER	2,582	1,916	1,927	342	370	7,137	522	225	644	1,391	8,528
2ND QUARTER	2,659	2,102	2,197	403	403	7,764	557	218	669	1,444	9,208
3RD QUARTER	2,621	1,914	2,163	416	389	7,503	629	207	721	1,557	9,060
4TH QUARTER	2,555	1,932	2,063	412	382	7,344	636	184	707	1,527	8,871
TOTAL YEAR	10,417	7,864	8,350	1,573	1,544	29,748	2,344	834	2,741	5,919	35,667
1984*											
1ST QUARTER	2,426	2,346	2,173	401	375	7,721	694	228	709	1,631	9,352
2ND QUARTER	2,752	2,072	2,311	397	385	7,917	599	235	643	1,477	9,394
3RD QUARTER	2,694	2,055	2,325	426	383	7,883	648	175	634	1,457	9,340
4TH QUARTER	2,470	1,823	2,202	416	353	7,264	642	139	602	1,383	8,647
TOTAL YEAR	10,342	8,296	9,011	1,640	1,496	30,785	2,583	777	2,588	5,948	36,733
1985*											
1ST QUARTER	2,372	1,826	1,905	395	332	6,830	724	210	718	1,652	8,482
2ND QUARTER	2,982	1,987	2,508	505	409	8,391	723	220	727	1,670	10,061
3RD QUARTER	2,797	1,898	2,486	399	387	7,967	705	177	679	1,561	9,528
4TH QUARTER	2,479	1,881	2,274	400	360	7,394	689	125	626	1,440	8,834
TOTAL YEAR	10,630	7,592	9,173	1,699	1,488	30,582	2,841	732	2,750	6,323	36,905

* SUBJECT TO REVISION.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

03/03/86

TABLE 2

ESTIMATED REGIONAL SOURCES OF DOMESTIC CONSUMPTION OF LUMBER (NET IMPORTS ALLOCATED)

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
1975	7,075	9,561	9,220	1,588	2,865	30,309	2,722	3,069	5,791	36,100
1976	7,641	12,069	10,820	1,981	3,575	36,086	3,054	3,387	6,441	42,527
1977	8,774	14,081	11,626	2,026	4,302	40,809	3,158	3,732	6,890	47,699
1978	9,096	15,133	11,559	1,849	5,003	42,640	3,242	3,755	6,997	49,637
1979	9,060	14,248	10,553	1,729	5,018	40,608	3,342	3,597	6,939	47,547
1980	7,757	11,461	8,509	1,563	4,542	33,832	3,028	3,244	6,272	40,104
1981	8,177	10,828	7,760	1,463	3,836	32,064	3,202	2,653	5,855	37,919
1982	8,232	10,381	7,316	1,327	3,917	31,173	2,031	3,066	5,098	36,270
1983*										
1ST QUARTER	2,442	3,290	1,982	359	1,150	9,223	487	810	1,297	10,520
2ND QUARTER	2,698	3,695	2,333	413	1,300	10,439	505	806	1,311	11,750
3RD QUARTER	2,644	3,638	2,296	403	1,273	10,254	572	858	1,430	11,684
4TH QUARTER	2,449	3,486	2,237	383	1,271	9,826	558	802	1,360	11,186
TOTAL YEAR	10,233	14,108	8,848	1,558	4,995	39,742	2,121	3,276	5,397	45,138
1984*										
1ST QUARTER	2,488	3,854	2,284	416	1,308	10,350	636	854	1,490	11,840
2ND QUARTER	2,727	3,965	2,564	425	1,405	11,085	624	908	1,532	12,617
3RD QUARTER	2,682	4,070	2,430	410	1,466	11,058	645	805	1,450	12,508
4TH QUARTER	2,505	3,782	2,329	393	1,355	10,363	613	711	1,323	11,687
TOTAL YEAR	10,402	15,672	9,606	1,643	5,534	42,857	2,518	3,277	5,795	48,652
1985*										
1ST QUARTER	2,381	3,640	2,002	382	1,304	9,708	696	914	1,610	11,318
2ND QUARTER	2,928	4,343	2,582	491	1,643	11,987	742	983	1,726	13,713
3RD QUARTER	2,665	4,127	2,663	434	1,527	11,418	685	830	1,515	12,932
4TH QUARTER	2,458	3,831	2,426	389	1,440	10,544	678	755	1,433	11,977
TOTAL YEAR	10,432	15,941	9,674	1,696	5,914	43,657	2,801	3,482	6,283	49,941

* SUBJECT TO REVISION

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHERS.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

03/03/86

TABLE 3

IMPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS											
	DOUGLAS FIR	OTHER FIR	HEMLOCK	SPRUCE	PINE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES (SAWED)	TOTAL LUMBER
1975	477.0	56.8	726.2	2,989.0	1,033.3	328.3	6.0	94.8	5,711.4	224.1	12.4	5,947.9
1976	744.2	91.3	1,083.8	4,116.0	1,305.4	480.2	8.7	121.2	7,950.8	228.3	8.2	8,187.3
1977	990.7	299.4	1,219.2	5,361.6	1,795.5	537.7	22.2	154.0	10,380.3	341.1	7.4	10,728.8
1978	976.2	508.9	1,219.8	6,312.9	1,916.9	657.5	41.8	190.6	11,824.6	361.4	12.3	12,198.3
1979	827.3	588.3	912.3	6,740.4	1,182.5	637.8	35.4	193.7	11,117.7	376.2	29.3	11,523.2
1980	559.0	440.8	627.8	6,167.9	1,023.9	543.4	20.7	156.6	9,540.1	293.2	31.3	9,864.6
1981	483.3	534.7	467.0	6,010.7	941.7	574.4	17.0	175.9	9,204.7	291.1	24.9	9,520.7
1982	504.3	460.7	293.9	6,341.2	801.6	539.0	28.8	149.4	9,118.9	211.0	26.2	9,356.0
1983												
1ST QUARTER	137.7	149.8	108.5	1,955.7	226.8	170.4	8.5	54.0	2,811.4	55.4	1.6	2,868.4
2ND QUARTER	132.5	181.0	85.0	2,148.9	240.0	157.9	24.0	61.7	3,031.0	61.0	4.0	3,096.1
3RD QUARTER	184.3	225.9	123.6	2,081.1	234.0	178.2	28.0	67.5	3,122.7	63.6	3.8	3,190.0
4TH QUARTER	145.8	152.0	99.5	2,168.7	219.0	157.6	13.0	56.8	3,012.3	80.5	3.2	3,095.9
TOTAL YEAR	600.3	708.6	416.7	8,354.4	919.8	664.1	73.5	239.9	11,977.4	260.5	12.5	12,250.4
1984												
1ST QUARTER	140.1	151.1	135.0	2152.8	240.7	190.9	9.4	75.6	3095.6	85.7	3.1	3184.4
2ND QUARTER	137.1	168.6	96.8	2390.5	251.8	136.3	9.0	59.3	3249.4	87.1	6.6	3343.1
3RD QUARTER	147.5	264.4	140.5	2551.2	225.8	200.9	8.9	72.8	3612.0	73.9	8.0	3693.9
4TH QUARTER	178.2	181.0	142.6	2377.0	183.4	176.1	7.7	67.3	3313.2	81.0	6.5	3400.7
TOTAL YEAR	603.0	765.1	514.9	9471.4	901.6	704.1	35.0	275.0	13270.2	327.7	24.2	13622.2
1985												
1ST QUARTER	154.6	189.1	171.1	2257.0	165.8	210.2	26.9	66.9	3241.6	105.9	3.2	3350.7
2ND QUARTER	205.9	200.0	185.6	2907.4	237.8	233.3	10.2	89.2	4069.3	96.1	11.8	4177.2
3RD QUARTER	247.4	236.0	151.0	2685.4	215.0	203.7	14.0	89.3	3841.8	85.3	7.7	3934.8
4TH QUARTER	157.1	166.8	136.2	2543.6	198.6	160.7	16.0	76.1	3455.1	76.3	5.1	3536.4
TOTAL YEAR	765.1	791.8	643.9	10,393.4	817.2	807.9	67.1	321.5	14,607.8	363.6	27.7	14,999.1

EXPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS												
	DOUGLAS FIR	SOUTHERN PINE	PONDEROSA/ WHITE PINE	REDWOOD	HEMLOCK	SPRUCE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES \4 (SAWED)	TOTAL \5 LUMBER
1975	505.1	67.5	177.0	37.4	317.5	158.8	35.7	74.2	----	1,373.2	165.3	75.6	1,614.1
1976	571.7	141.4	214.0	61.3	294.2	165.5	60.7	75.7	----	1,584.5	225.5	30.9	1,840.9
1977	488.3	157.8	195.0	48.1	264.2	150.7	61.3	47.0	----	1,412.4	226.1	19.2	1,657.7
1978	456.9	130.5	136.9	34.3	272.5	135.4	59.2	120.1	23.1	1,368.9	320.1	25.8	1,714.8
1979	505.4	195.1	147.7	30.1	463.7	151.1	56.0	179.4	16.2	1,744.7	306.6	90.5	2,141.8
1980	520.8	261.4	168.1	27.3	511.2	136.4	62.0	248.6	20.2	1,956.0	378.6	128.3	2,462.9
1981	509.0	211.2	223.8	37.7	390.2	141.4	66.9	280.6	16.8	1,877.6	405.7	88.8	2,372.1
1982	457.2	231.8	140.8	22.5	391.7	124.9	40.5	206.0	14.8	1,630.2	356.2	34.4	2,020.8
1983													
1ST QUARTER	134.3	54.1	40.8	5.0	95.2	35.2	11.8	54.8	2.7	434.0	100.5	9.2	543.7
2ND QUARTER	170.2	57.0	57.5	6.4	95.0	27.2	12.8	58.2	2.9	487.2	121.0	16.4	624.6
3RD QUARTER	121.6	46.3	53.6	6.6	86.2	28.1	12.0	50.8	2.0	407.2	126.0	10.6	543.8
4TH QUARTER	133.1	51.0	45.4	6.1	99.8	23.3	10.2	44.1	3.1	416.1	130.8	11.1	557.9
TOTAL YEAR	559.3	208.4	197.3	24.0	376.2	113.9	46.8	207.8	10.8	1,744.5	478.2	47.2	2,269.9
1984													
1ST QUARTER	136.8	39.1	46.9	5.5	77.8	24.9	10.7	42.8	2.9	387.5	117.4	30.9	535.9
2ND QUARTER	159.3	53.5	45.0	15.1	81.8	19.8	10.1	56.0	3.8	444.2	129.3	9.4	582.9
3RD QUARTER	131.7	35.7	46.0	5.2	84.8	25.6	9.7	47.8	3.1	389.7	112.4	24.6	526.7
4TH QUARTER	104.3	44.1	36.3	4.4	93.1	27.7	8.7	56.1	3.3	377.9	107.4	19.7	505.0
TOTAL YEAR	532.1	172.4	174.1	30.1	337.4	98.1	39.2	202.7	13.1	1599.3	466.5	84.6	2150.4
1985													
1ST QUARTER	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7
2ND QUARTER	130.4	44.4	42.1	3.8	83.2	17.2	7.0	55.2	2.8	385.9	97.3	7.7	490.9
3RD QUARTER	113.2	39.5	44.4	3.5	78.2	14.2	6.4	65.5	3.1	368.1	96.3	17.1	481.4
4TH QUARTER	114.4	43.5	43.4	5.0	101.5	8.4	7.8	61.0	1.9	387.0	100.8	4.5	492.3
TOTAL YEAR	475.6	164.4	167.7	15.7	364.4	60.8	27.4	228.7	10.6	1,515.4	397.1	32.9	1,945.3

1. Sawed timber, board planks and scantlings, flooring, box shook and railroad ties.
2. Includes siding and softwood lumber drilled or treated. Beginning 1978 includes siding and flooring. For exports, figures not availa prior to 1978.
3. Includes hardwood flooring, siding and hardwood lumber drilled or treated.
4. Includes a small amount of hewn railroad ties. Beginning with 1978 includes mine timber.
5. Includes box shook: 1973 - 4.4 mbf; 1974 - 6.1 mbf; 1975 - 4.1 mbf; 1976 - 6.0 mbf; 1977 - 5.8 mbf. Beginning with 1978 box shook is reported in appropriate species.

SOURCE: Foreign Agricultural Service, U.S. Department of Agriculture; Forest Products Division, BIE, U.S. DOC, from data of the Foreign Trade Division, Bureau of Census.

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

03/03/86

TABLE 4

ESTIMATED GROSS MILL STOCKS OF LUMBER AND UNFILLED ORDERS FOR LUMBER BY REGION

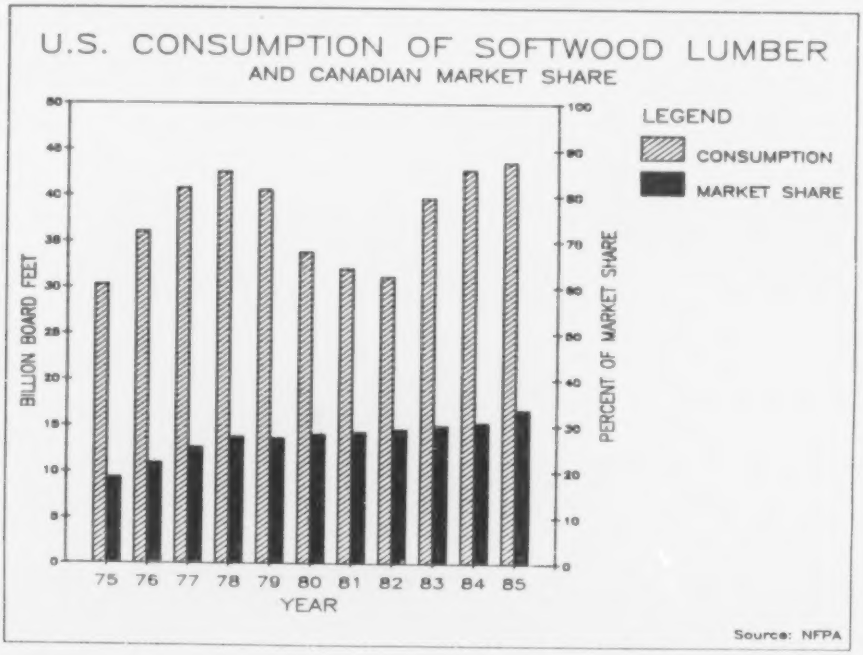
(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
GROSS MILL STOCKS										
DECEMBER 31ST										
1975	1,134	920	1,270	477	262	4,063	448	427	875	4,938
1976	1,245	949	1,315	434	271	4,214	453	432	885	5,099
1977	1,192	964	1,329	359	265	4,109	412	385	797	4,906
1978	1,197	903	1,295	377	260	4,032	422	398	820	4,852
1979	1,225	918	1,379	435	273	4,230	558	547	1,105	5,335
1980	1,424	912	1,185	434	273	4,228	780	792	1,572	5,800
1981	1,451	912	1,149	385	269	4,166	841	886	1,727	5,893
1982	1,741	862	1,055	336	275	4,269	775	764	1,539	5,808
1983*										
1ST QUARTER	1,743	1,060	1,158	391	295	4,647	736	687	1,423	6,070
2ND QUARTER	1,706	1,000	1,158	377	288	4,529	682	579	1,261	5,790
3RD QUARTER	1,711	1,013	1,269	349	292	4,634	688	590	1,278	5,912
4TH QUARTER	1,708	994	1,279	334	291	4,606	708	626	1,334	5,940
1984*										
1ST QUARTER	1,801	1,135	1,405	348	310	4,999	710	632	1,342	6,341
2ND QUARTER	1,808	1,136	1,439	352	312	5,047	722	654	1,376	6,423
3RD QUARTER	1,782	1,083	1,368	344	304	4,881	765	721	1,486	6,367
4TH QUARTER	1,808	914	1,257	325	290	4,594	795	761	1,556	6,150
1985*										
1ST QUARTER	1,875	969	1,348	391	304	4,887	797	969	1,766	6,653
2ND QUARTER	1,817	863	1,308	350	292	4,630	820	982	1,829	6,459
3RD QUARTER	1,847	900	1,297	360	296	4,700	849	990	1,904	6,604
4TH QUARTER	1,863	909	1,295	355	297	4,719	853	1,009	1,913	6,632
ESTIMATED UNFILLED ORDERS										
DECEMBER 31ST										
1975	453	550	538	204	256	2,001	260	177	437	2,438
1976	450	634	554	227	264	2,129	243	157	400	2,529
1977	488	565	590	271	267	2,181	292	214	506	2,687
1978	535	553	469	234	259	2,050	332	253	585	2,635
1979	553	529	403	138	246	1,869	256	163	419	2,288
1980	499	499	326	111	230	1,665	197	90	287	1,952
1981	544	429	219	111	220	1,523	225	121	346	1,869
1982	590	612	324	150	242	1,918	221	144	365	2,283
1983*										
1ST QUARTER	730	701	421	128	258	2,238	216	136	352	2,590
2ND QUARTER	694	649	431	112	252	2,138	219	141	360	2,498
3RD QUARTER	684	638	443	118	250	2,133	222	148	370	2,503
4TH QUARTER	793	674	410	141	258	2,276	253	182	435	2,711
1984*										
1ST QUARTER	692	824	457	121	261	2,355	289	228	517	2,872
2ND QUARTER	664	633	373	78	244	1,992	235	182	417	2,409
3RD QUARTER	640	650	414	89	246	2,039	212	157	369	2,408
4TH QUARTER	561	561	407	108	238	1,875	222	167	389	2,264
1985*										
1ST QUARTER	515	580	413	118	238	1,864	248	169	417	2,281
2ND QUARTER	525	555	499	128	244	1,951	224	160	364	2,315
3RD QUARTER	617	563	460	89	245	1,974	234	159	390	2,364
4TH QUARTER	595	528	433	95	241	1,892	227	140	373	2,265
UNFILLED ORDERS IN RELATION TO GROSS MILL STOCKS (Unfilled Orders As Percentage of Mill Stocks)										
1975	40%	60%	42%	43%	98%	49%	58%	41%	50%	49%
1976	36%	67%	42%	52%	97%	51%	54%	36%	45%	50%
1977	41%	59%	44%	75%	101%	53%	71%	56%	63%	55%
1978	45%	61%	36%	62%	100%	51%	79%	64%	71%	54%
1979	45%	58%	29%	32%	90%	44%	46%	30%	38%	43%
1980	35%	55%	28%	26%	84%	39%	25%	11%	18%	34%
1981	37%	47%	19%	29%	82%	37%	27%	14%	20%	32%
1982	34%	71%	31%	45%	88%	45%	29%	19%	24%	39%
1983*										
1ST QUARTER	42%	66%	36%	33%	87%	48%	29%	20%	25%	43%
2ND QUARTER	41%	65%	37%	30%	88%	47%	32%	24%	29%	43%
3RD QUARTER	40%	63%	35%	34%	86%	46%	32%	25%	29%	42%
4TH QUARTER	46%	68%	32%	42%	89%	49%	36%	29%	33%	46%
1984*										
1ST QUARTER	38%	73%	33%	35%	84%	47%	41%	36%	39%	45%
2ND QUARTER	37%	56%	26%	22%	78%	39%	33%	28%	30%	38%
3RD QUARTER	36%	60%	30%	26%	81%	42%	28%	22%	25%	38%
4TH QUARTER	31%	61%	32%	33%	82%	41%	28%	22%	25%	37%
1985*										
1ST QUARTER	27%	60%	31%	30%	78%	38%	31%	17%	24%	34%
2ND QUARTER	29%	64%	38%	37%	84%	42%	27%	16%	20%	36%
3RD QUARTER	33%	63%	35%	25%	83%	42%	28%	16%	20%	36%
4TH QUARTER	32%	58%	33%	27%	81%	40%	27%	14%	19%	34%

* SUBJECT TO REVISION.
** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHER.

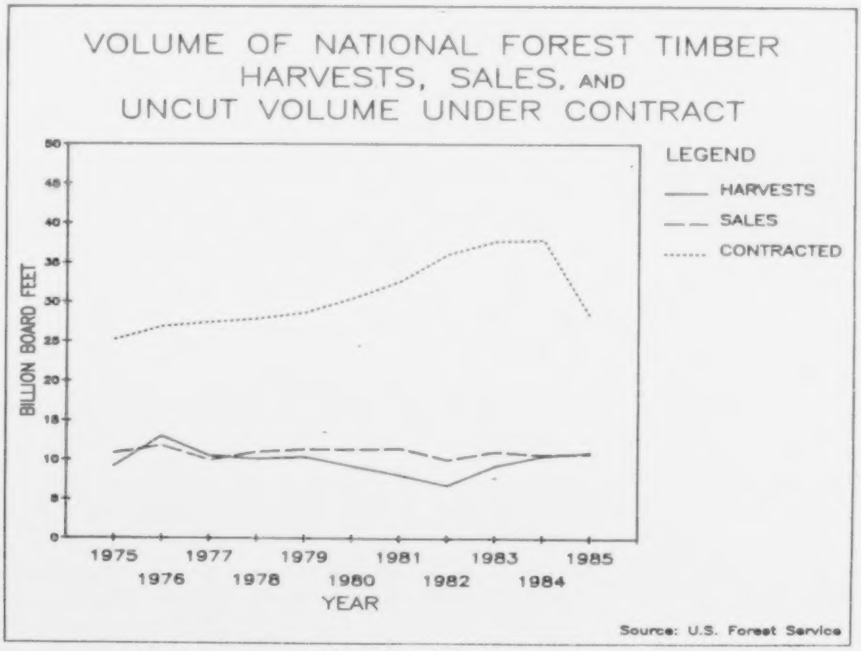
SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

Figure 1: Consumption of softwood lumber in the United States climbed to a new record in 1985 -- to nearly 43.7 billion board feet. The market share accounted for by imports from Canada also set a new record at 33.2 percent.



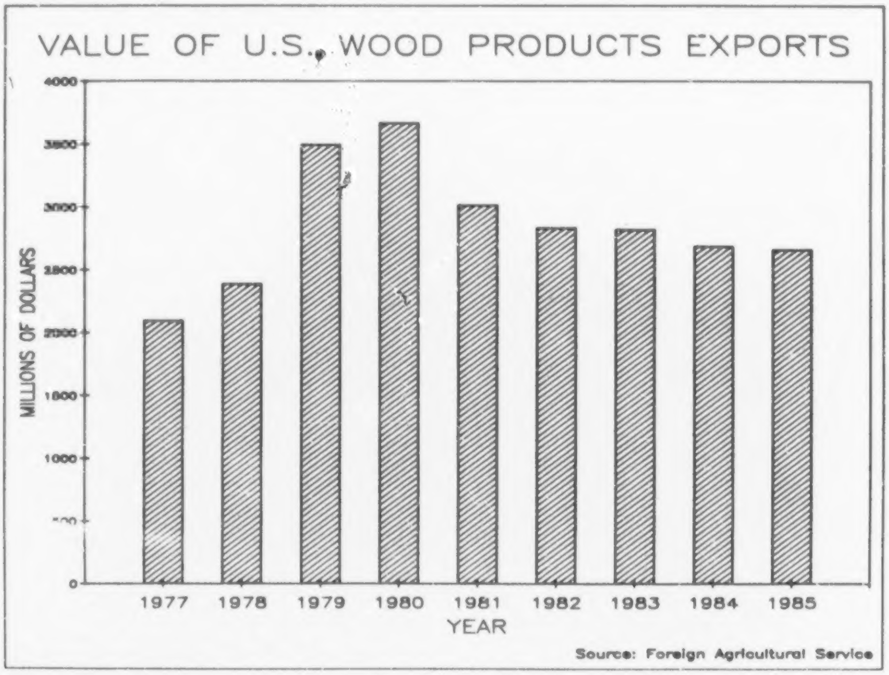
Source: NFPA

Figure 2: On the National Forests, two factors are bringing uncut volume under contract to historic norms: (1) volume retianed under the buyout (Timber Contract Modification Act); and (2) improving market demand, which drives harvests above sales levels.



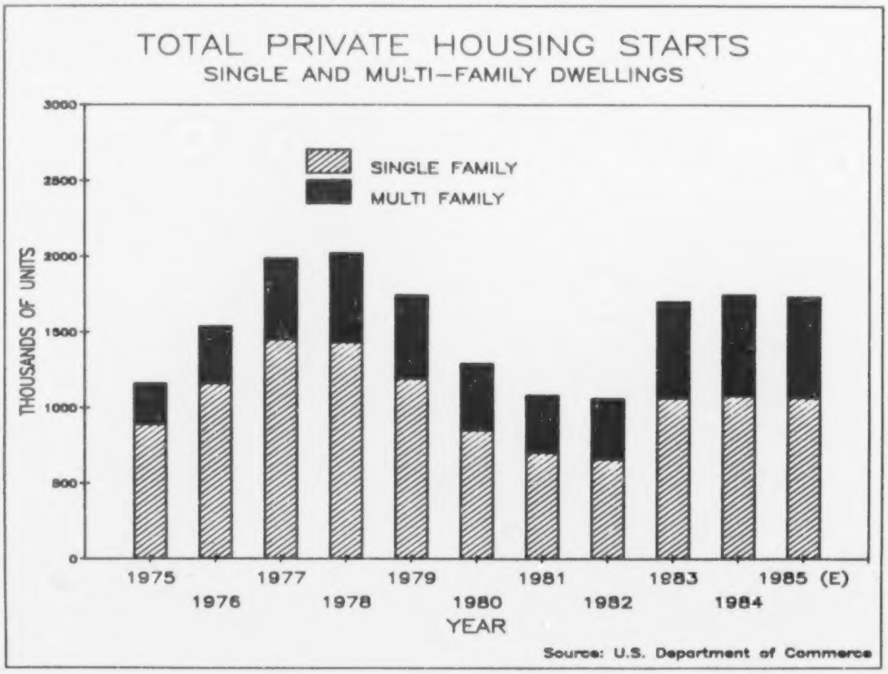
Source: U.S. Forest Service

Figure 3: Housing starts in 1985 totaled 1.74 million units, the third year in a row of over 1.7 million units. Not since the 1977 - 1979 period have housing starts experienced a better three year period.



Source: Foreign Agricultural Service

Figure 4: The value of U.S. wood products exports in 1985 totaled $2,663,565,000. Wood products exports have remained remarkably strong despite the appreciation in the dollar. Despite a weakening of the dollar during 1985, the weighted average exchange rate for the dollar was, on average, 65 percent higher than in 1980.



Source: U.S. Department of Commerce

NOTE

This Microfiche meets the quality requirements of the American National Standard for Microfiche of Documents (ANSI PH5.9-1975). However, because of imperfections in the document from which it was made, it contains images that are illegible or difficult to read. The source document for this microfiche is the best copy that could be obtained prior to filming.

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A7870-3

NFPA **National Forest Products Association**
1619 Massachusetts Avenue, N.W./Washington, D.C. 20036/202-797-5800

April 15, 1986

A Note to Our Readers:

The National Forest Products Association has moved its offices. The new address and phone number are:

National Forest Products Association
1250 Connecticut Avenue, NW
Washington, DC 20036
(202) 463-2700

Because of the move, the production of the NFPA Economics Monthly was temporarily disrupted. As a result, we do not have a lead story for this month. However, the statistics are available; attached is the statistical insert with data for January.

We apologize for this. Please be assured that normal production will resume with April's issue.

For information about the Economics Monthly, please contact Julia Stewart at (202) 463-2714.

Pertinent Monthly Statistics

The United States exported $468,000 of wood products to Libya during 1985.

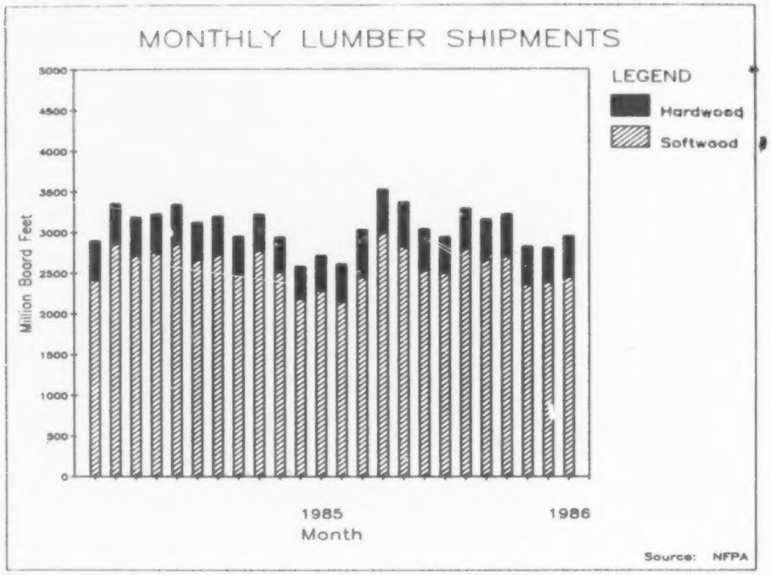
The annual rate of housing starts during the First Quarter, 1986 averaged 1.986 million units. This was 11 percent higher than last year.

The Random Lengths Composite Price for softwood lumber averaged $226 during March. The peak monthly average last year was $223.

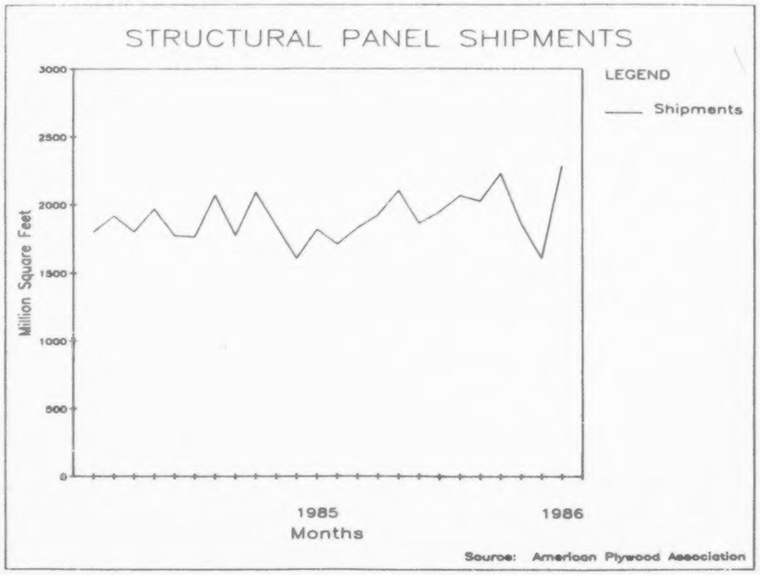
ECONOMICS MONTHLY
March, 1986

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	JANUARY 1986			JANUARY 31, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	881	872	889	612	1,872
Douglas Fir Region	666	640	670	558	935
Western Pine Region	743	695	747	485	1,343
California Redwood Region	160	126	146	115	389
Other Softwoods	125	119	125	247	303
TOTAL SOFTWOODS	2,575	2,452	2,577	2,017	4,842
% Change - December 1985	14.8%	2.4%	8.7%	6.6%	2.6%
% Change - January 1985	9.6%	8.0%	12.7%	6.7%	3.6%
HARDWOOD LUMBER					
Southern Hardwood Region	250	244	267	250	859
Appalachian Hardwood Reg.	42	40	44	*	*
Other Hardwoods	225	219	239	170	1,068
TOTAL HARDWOODS	517	503	550	420	1,927
% Change - December 1985	20.2%	14.6%	31.9%	12.6%	0.7%
% Change - January 1985	5.9%	7.2%	17.0%	12.6%	8.3%
TOTAL LUMBER	3,092	2,955	3,127	2,437	6,769
% Change - December 1985	15.6%	4.3%	12.2%	7.6%	2.1%
% Change - January 1985	9.0%	7.8%	13.4%	7.6%	4.9%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	11,088	NA	5,796	4,735
Maple Flooring (Sq. Ft.)	1,044	766	708	2,261	2,395
STRUCTURAL PANELS	2,292,512	2,278,228	2,273,236	578,432	358,000
% Change - December 1985	36.5%	42.0%	36.0%	-0.2%	-17.5%
% Change - January 1985	19.1%	25.4%	22.3%	22.5%	-22.2%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

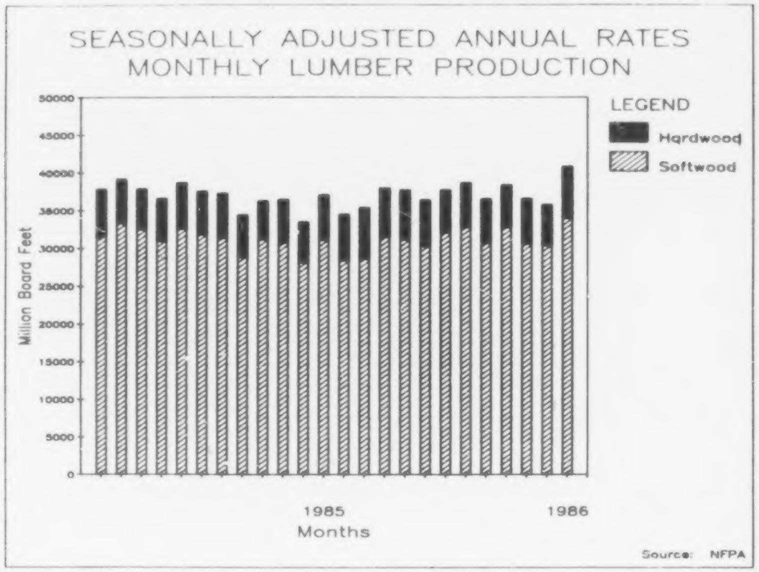
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	1 mos.'86	1 mos.'85	1 mos.'86	1 mos.'85	1 mos.'86	1 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	3,092	9.0%	2,955	7.8%	3,127	13.4%
TOTAL SOFTWOOD	2,575	9.6%	2,452	8.0%	2,577	12.7%
TOTAL HARDWOOD	517	5.9%	503	7.2%	550	17.0%

SEASONALLY ADJUSTED ANNUAL RATES

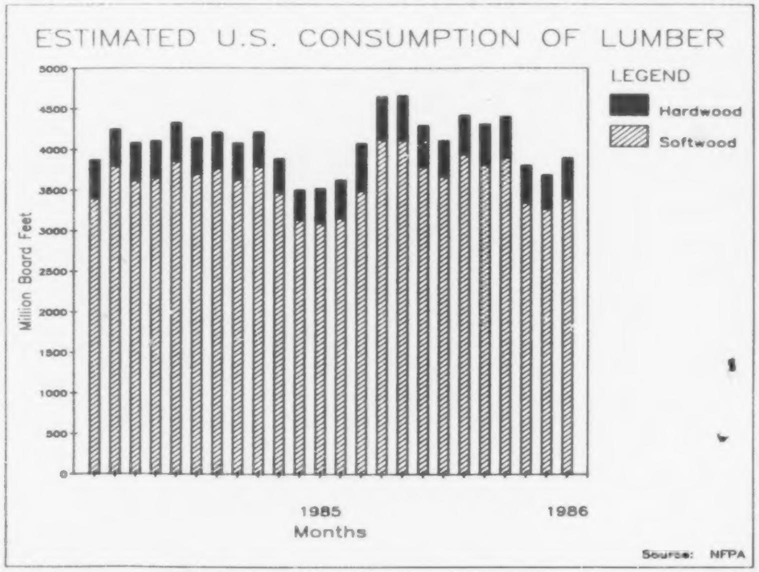
LUMBER REGION	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
	Jan. '86	Dec. '85	Jan. '85	Jan. '86	Dec. '85	Jan. '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	11,128	12.4%	7.8%	11,227	5.7%	12.4%
Douglas Fir	8,369	5.8%	7.1%	8,384	-0.8%	4.6%
Western Pine	10,994	11.8%	15.9%	10,530	-0.7%	7.4%
Calif. Redwood	1,846	29.4%	3.2%	1,507	-16.8%	0.0%
Other Softwoods	1,647	14.6%	9.6%	1,651	7.2%	8.2%
TOTAL SOFTWOODS	33,984	11.4%	9.9%	33,300	0.8%	8.0%
TOTAL HARDWOODS	6,870	21.8%	5.9%	6,134	4.4%	7.2%
TOTAL LUMBER	40,854	13.0%	9.2%	39,435	1.4%	7.8%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	Jan. '86	Dec. '85	Jan. '85	1 mos.'86	1 mos.'85
	(Million Board Feet)				
Total Consumption	3,903	5.7%	10.0%	3,903	10.0%
Softwood Consumption	3,401	3.9%	10.3%	3,401	10.3%
Hardwood Consumption	502	19.3%	8.2%	502	8.2%



Source: NFPA

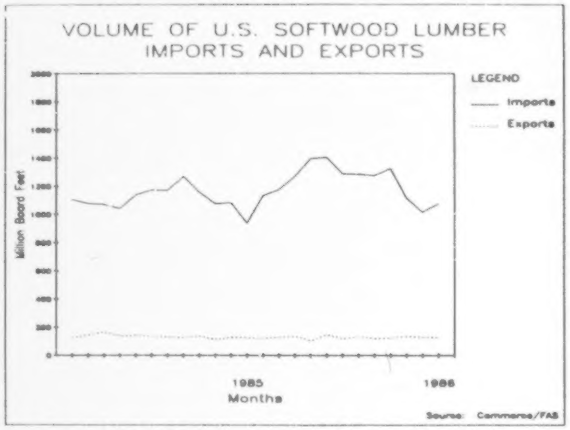


Source: NFPA

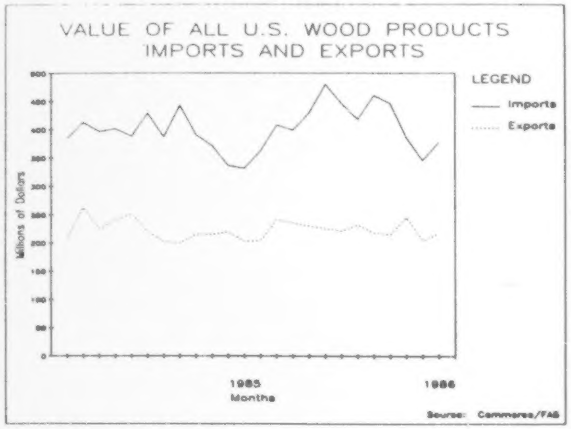
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Jan. '86	1 mo. 1986	% Change From Dec. '85	% Change From 1 mo. 1985	Jan. '86	1 mo. 1986	% Change From Dec. '85	% Change From 1 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	127.1	127.1	0.4%	2.3%	39,714	39,714	-2.4%	-3.6%
To Canada	MMBF	28.1	28.1	49.1%	45.9%	7,113	7,113	58.8%	39.7%
SOFTWOOD LOGS	MMBF	255.4	255.4	-7.0%	-8.5%	75,265	75,265	-8.9%	-8.8%
SOFTWOOD PLYWOOD	MMSF 3/8"	62.4	62.4	37.0%	77.7%	14,059	14,059	39.9%	80.9%
HARDWOOD LUMBER	MMBF	37.7	37.7	33.2%	7.8%	26,791	26,791	43.4%	34.6%
HARDWOOD LOGS	MMBF	8.7	8.7	0.1%	-30.2%	9,527	9,527	4.4%	14.3%
HARDWOOD VENEER	MMSFsurf	55.2	55.2	23.8%	-17.3%	4,989	4,989	33.2%	-2.2%
PARTICLEBOARD	MMSF 3/4"	11.7	11.7	12.3%	42.6%	2,357	2,357	-6.8%	47.6%
ALL OTHER		NA	NA	NA	NA	43,298	43,298	23.2%	24.3%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	216,957	216,957	6.7%	7.3%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,075.9	1,075.9	6.1%	15.0%	208,306	208,306	6.9%	17.0%
From Canada	MMBF	1,062.3	1,062.3	6.4%	14.4%	205,457	205,457	6.4%	16.0%
SOFTWOOD LOGS	MMBF	2.7	2.7	73.2%	-75.5%	296	296	-33.2%	-86.6%
SOFTWOOD PLYWOOD	MMSF 3/8"	10.5	10.5	49.2%	4.6%	3,000	3,000	52.9%	91.9%
HARDWOOD LUMBER	MMBF	36.8	36.8	60.0%	19.8%	16,426	16,426	40.3%	5.5%
HARDWOOD LOGS	MMBF	1.5	1.5	-53.2%	-37.6%	368	368	-4.7%	10.8%
HARDWOOD VENEER	MMSFsurf	136.7	136.7	44.8%	61.8%	8,888	8,888	17.9%	33.1%
HARDWOOD PLYWOOD	MMSF 3/8"	341.7	341.7	48.3%	21.2%	45,024	45,024	42.1%	12.3%
HARDBOARD	MMSFsurf	82.9	82.9	22.0%	111.9%	5,257	5,257	27.2%	14.2%
PARTICLEBOARD	MSF 3/4"	48.1	48.1	14.6%	22.8%	11,923	11,923	4.4%	22.8%
ALL OTHER		NA	NA	NA	NA	77,646	77,646	-3.4%	8.1%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	377,212	377,212	9.4%	14.0%

Note: Volume total is not possible because the products are in different units of measure.



Source: Commerce/FAS



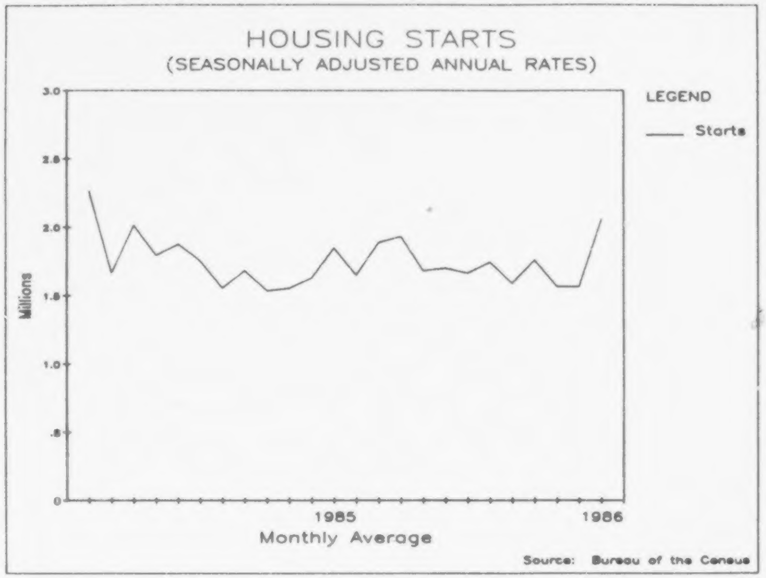
Source: Commerce/FAS

CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Jan. '86	Dec. '85	Jan. '85	1 mo. '86	1 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW					
CONSTRUCTION PUT-IN-PLACE	24.4	-11.7%	5.6%	24.4	5.6%
Private	20.3	-12.4%	4.1%	20.3	4.1%
Residential	10.2	-9.5%	0.0%	10.2	0.0%
Nonresidential & Other	7.0	-10.3%	-24.7%	7.0	-24.7%
Public	4.1	-7.9%	13.9%	4.1	13.9%
	Jan. '86	Dec. '85	Jan. '85	1 mo. '86	1 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	117.1	-2.8%	11.1%	223.3	111.9%
New Private Starts	116.9	-3.0%	10.9%	223.1	111.7%
Seas. Adj. Annual Rate	2056	9.2%	11.2%		
One-Family Housing Starts	73.1	10.8%	23.3%	138.7	133.9%
Proportion of Total	62.4%			62.1%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	18,900	11.8%	1.6%	18,900	1.6%

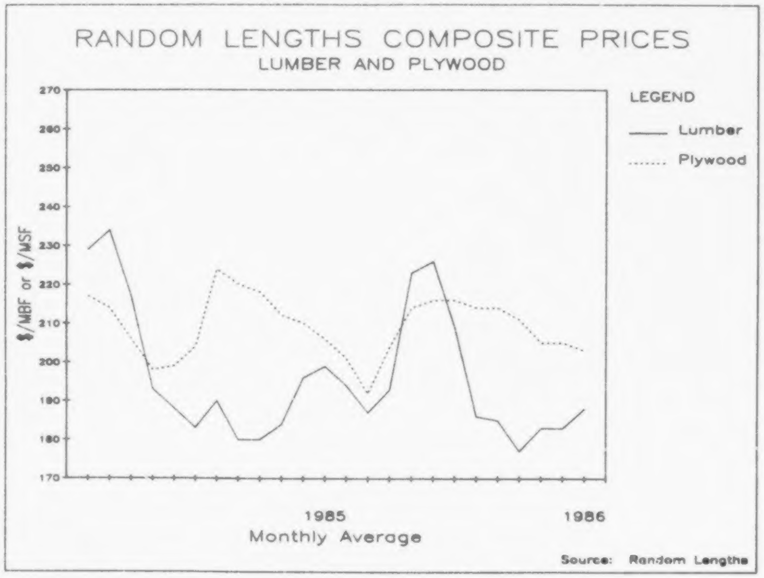
EMPLOYMENT STATISTICS

		----% Change From---	
	Jan. '86	Dec. '85	Jan. '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,507	0.4%	3.6%
All Manufacturing Industries	19,460	0.1%	-1.8%
Lumber and Wood Products	721	0.8%	0.8%
Furniture and Fixtures	499	0.0%	0.4%


HOUSING STARTS

(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census


RANDOM LENGTHS COMPOSITE PRICES

LUMBER AND PLYWOOD

Source: Random Lengths

A7820-3

NFPA® Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume 2 Number 4 April, 1986

AFTER THE TIMBER BUYOUT: WHAT'S LEFT OVER IS STILL A PROBLEM

In November 1984, Congress passed the Federal Timber Contract Payment Modification Act (PL 98-478). The law's purpose was to prevent massive defaults on federal timber contracts, and to avert numerous bankruptcies in the Pacific Northwest. The Act, often referred to as the "buyout bill", provided much needed relief to producers at a time when wood product prices were plummeting to a point where they could no longer support the high bids made on public timber.

Almost seven billion board feet of National Forest timber still remain under contract following the return of high-priced Forest Service and BLM timber sale contracts in California, Washington and Oregon. Many purchasers are left holding timber sales which, in aggregate, represent losses of over $900 million.

Background: Overbidding, Then Recession Led to Inoperable Contracts

Several factors contributed to the pattern of high bids on Federal timber sale contracts which developed in the late 1970's and early 1980's. Extremely optimistic economic forecasts and predictions of continued inflation encouraged purchasers to bid aggressively for timber sales. In addition, pending wilderness and land management planning decisions threatened to reduce the future availability of timber from the national forests. This added some measure of desperation to the bidding, but purchasers had a degree of confidence that lumber prices would rise to cover the added raw material costs. Consequently, average stumpage prices in early 1980 on the westside of Oregon and Washington approached $400/Mbf.

In 1982, however, lumber prices dropped to 66% of what they had been in 1979. As the recession worsened, both the industry and the Reagan Administration concluded that the high-priced contracts were no longer economically operable.

In 1983, The Administration offered the opportunity to extend contracts for up to five years in hopes that the losses from the older, more expensive sales could be averaged with the margins from newer, less expensive sales. The success of the extension program depended on: first, a rapid recovery in lumber prices, and second, a timber sale program large enough that competitive bidding on newly offered sales would not drive away margins.

Unfortunately, the lumber market showed no signs of recovering quickly or strongly enough to make contracts bid prior to 1982 economically viable. Since the old contracts were uneconomic, most of the harvest from 1982 forward came from new, short term contracts. In turn, these new contracts were soon in short supply. Bidding rose to the point where margins became too meager to average away the loss on the older contracts. Thus, the timber sale extension program appeared to be largely inadequate to resolve the problem of high-priced timber sale contracts.

MONTHLY STATISTICAL HIGHLIGHTS

The annual rate of housing starts during the first quarter, 1986 averaged 1.99 million units, up 11 percent from a year ago.

The prime rate this month was lowered to 8.50 percent by most major banks, bringing it to the lowest level since June, 1978.

February's lumber production fell slightly from January, but was up 10.2 percent from February, 1985.

Canadian imports of softwood lumber during the first two months of 1986 were up by 6.3 percent, and accounted for 32.4 percent of U.S. consumption.

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Congress responded by offering purchasers the opportunity to return a portion of their high-priced volume at a nominal cost.

The Federal Timber Contract Payment Modification Act

Under the Act's provisions, timber volume that was bid before January 1, 1982, and held on June 1, 1984, was eligible to be returned to the government with payment of a buyout fee. The Act allowed purchasers to return up to 55% of the unharvested volume they purchased before 1982, for a payment ranging from $10/Mbf to 15% of the overbid, depending on the losses represented by the contracts relative to the size of the company. This fee or buyout charge was paid in lieu of stumpage or default payments. No purchaser was allowed to return more than 200 million board feet. Over 21 billion board feet of eligible timber was under contract, 19.5 billion board feet in the three Pacific Coast states. The average bid price on this volume was $262/Mbf.

Table I:

Contracts Bought Out and Contracts Remaining In
Oregon, Washington, and California

	Number of Contracts	Volume (BBF)	Average Stumpage ($/Mbf)	Delivered Log Costs ($MM)(1	Delivered Log Values ($MM)(2	Net Loss Potential ($MM)
RETURNED	1,474	9.6	318	4,669.5	2,462.8	(2,206.7)
REMAINING	1,057	6.9	222	2,623.7	1,705.2	(918.5)

1) The estimated costs incurred by the purchaser for logs delivered to the mill under contractual obligations (includes stumpage, logging and hauling costs).

2) The estimated value of delivered logs on December 31, 1985.

SOURCE: Timber Data Company

Original estimates placed the maximum volume that could be returned in Oregon, Washington and California at 11.3 billion board feet.[1] Over 9.6 billion board feet (Table I) was actually returned, with buyout fees totaling $184 million. Based on current delivered log values estimated by Timber Data Company, these sales would have represented a loss of $2,206 million to the purchasers, had they harvested the timber. The Forest Service will reoffer 3.2 billion board feet of this volume in Fiscal Year 86 and prepares to reoffer 2.6 billion board feet in Fiscal Year 87, with the balance reoffered in later years.

Most of The Volume Remaining after the Buyout is Still Uneconomic

The volume remaining after the buyout still represents a significant liability to many purchasers. Since not all volume could be returned, each purchaser had to choose which sales to return and which to keep. In general, the contracts representing the greatest financial losses were returned. Even though purchasers returned their most unprofitable sales, the remaining sales are still, by and large, economically inoperable in today's marketplace.

With data supplied by Timber Data Company, NFPA analyzed sales based upon estimates of delivered log values on December 31, 1985. This analysis depicts the potential losses faced by purchasers holding the remaining contracts. Consider:

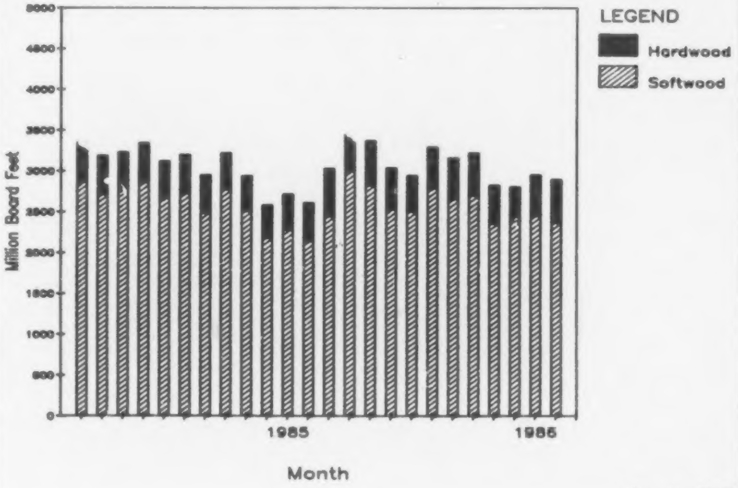
- About 90% of the 6.9 billion board feet remaining in old contracts after the buyout in California, Washington and Oregon represent an average loss of $151/Mbf to purchasers in today's market (Table II).
- Over 2.8 billion board feet remains in contracts with net losses in excess of $150/Mbf.
- Almost 45% of the total losses on the remaining volume are from contracts with average losses greater than $225/Mbf.

NFPA ECONOMICS MONTHLY
April, 1986

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

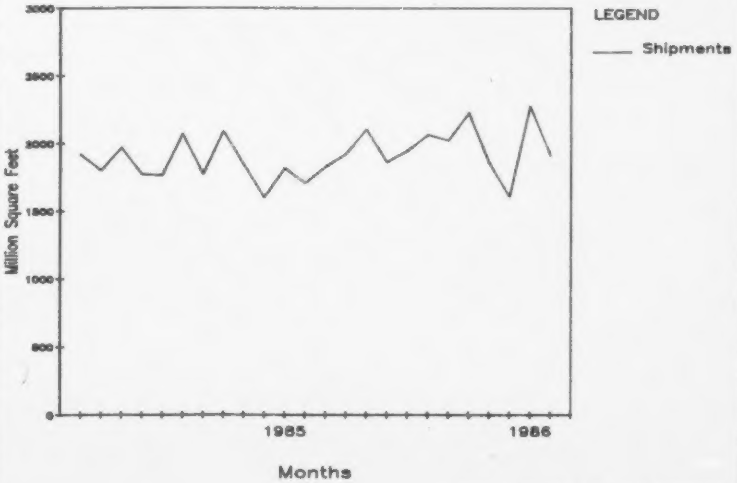
	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	FEBRUARY 1986			FEBRUARY 28, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	825	816	890	687	1,881
Douglas Fir Region	671	617	659	600	989
Western Pine Region	736	712	728	501	1,367
California Redwood Region	134	110	122	127	413
Other Softwoods	121	115	123	255	309
TOTAL SOFTWOODS	2,487	2,370	2,522	2,170	4,959
% Change - January 1986	-3.9%	-3.9%	-2.7%	7.5%	2.4%
% Change - February 1985	10.8%	11.1%	17.7%	14.2%	3.7%
HARDWOOD LUMBER					
Southern Hardwood Region	275	261	269	258	873
Appalachian Hardwood Reg.	41	38	39	*	*
Other Hardwoods	243	230	237	178	1,084
TOTAL HARDWOODS	559	529	545	436	1,957
% Change - January 1986	8.1%	5.2%	-0.9%	3.8%	1.6%
% Change - February 1985	7.7%	4.5%	-4.0%	0.2%	9.1%
TOTAL LUMBER	3,046	2,899	3,067	2,606	6,916
% Change - January 1986	-1.9%	-2.4%	-2.4%	6.9%	2.2%
% Change - February 1985	10.2%	9.9%	13.1%	11.6%	5.2%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	10,614	NA	6,572	4,238
Maple Flooring (Sq. Ft.)	917	747	578	3,592	1,651
STRUCTURAL PANELS	1,926,062	1,913,778	1,874,101	638,850	352,000
% Change - January 1986	-16.0%	-16.0%	-17.6%	10.4%	-1.7%
% Change - February 1985	10.7%	12.3%	18.9%	85.9%	8.7%

MONTHLY LUMBER SHIPMENTS



Source: NFPA

STRUCTURAL PANEL SHIPMENTS



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

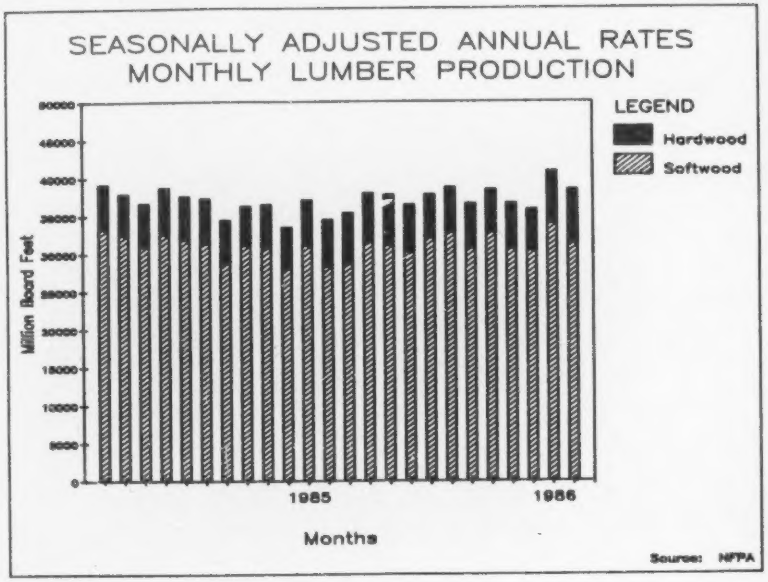
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	2 mos.'86	2 mos.'85	2 mos.'86	2 mos.'85	2 mos.'86	2 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	6,152	9.8%	5,868	9.1%	6,209	13.6%
TOTAL SOFTWOOD	5,076	10.5%	4,836	9.8%	5,114	15.4%
TOTAL HARDWOOD	1,076	6.9%	1,032	5.8%	1,095	5.5%

SEASONALLY ADJUSTED ANNUAL RATES

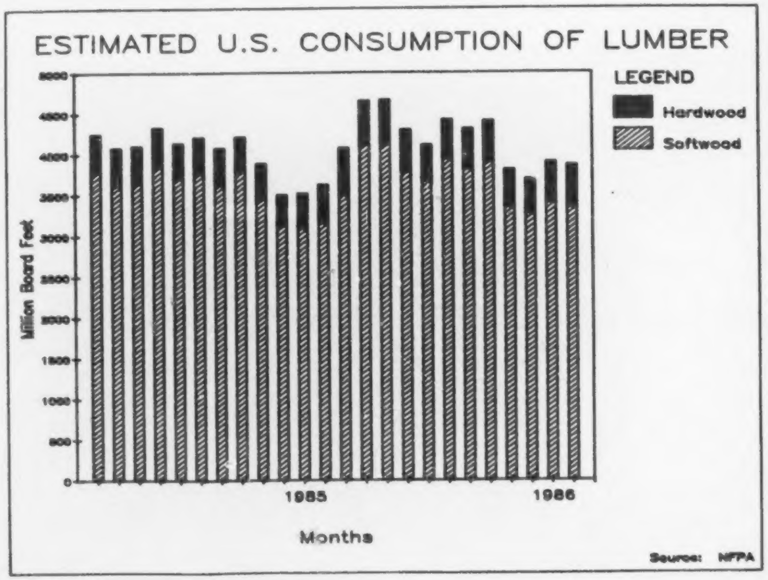
	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	Feb. '86	Jan. '86	Feb. '85	Feb. '86	Jan. '86	Feb. '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	10,366	-8.2%	6.3%	10,340	-9.3%	7.5%
Douglas Fir	8,109	-3.1%	13.2%	7,827	-6.7%	10.4%
Western Pine	9,631	-12.4%	18.1%	9,138	-13.2%	21.5%
Calif. Redwood	1,603	-13.2%	-6.9%	1,324	-12.2%	-12.0%
Other Softwoods	1,556	-6.2%	11.0%	1,476	-11.3%	10.6%
TOTAL SOFTWOODS	31,266	-8.5%	10.9%	30,105	-10.1%	11.2%
TOTAL HARDWOODS	7,182	4.5%	7.7%	6,367	3.8%	4.5%
TOTAL LUMBER	38,448	-6.3%	10.3%	36,472	-7.9%	10.0%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	Feb. '86	Jan. '86	Feb. '85	2 mos.'86	2 mos.'85
	(Million Board Feet)				
Total Consumption	3,865	-1.3%	5.7%	7,782	8.1%
Softwood Consumption	3,344	-2.1%	6.4%	6,759	8.6%
Hardwood Consumption	521	3.9%	1.6%	1,023	4.7%


SEASONALLY ADJUSTED ANNUAL RATES MONTHLY LUMBER PRODUCTION

Source: NFPA

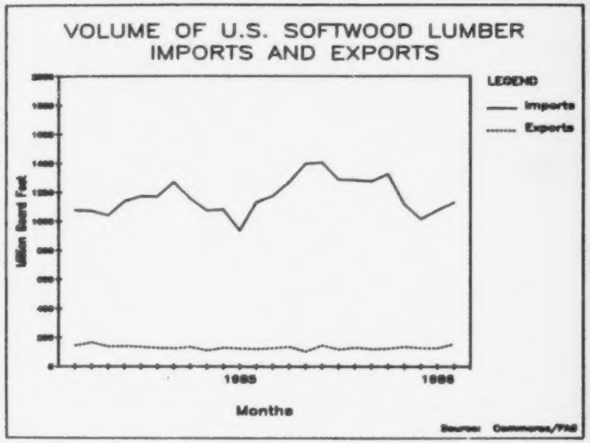

ESTIMATED U.S. CONSUMPTION OF LUMBER

Source: NFPA

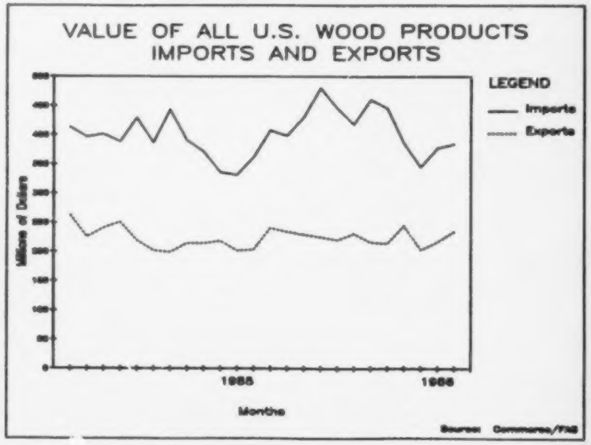
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Feb. '86	2 mo. 1986	% Change From Jan. '86	% Change From 2 mo. 1985	Feb. '86	2 mo. 1986	% Change From Jan. '86	% Change From 2 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	154.6	281.7	21.6%	14.4%	48,924	88,638	23.2%	26.1%
To Canada	MMBF	28.9	56.9	2.7%	36.0%	6,870	13,983	-3.4%	18.8%
SOFTWOOD LOGS	MMBF	280.8	536.2	9.9%	-3.8%	91,621	166,886	21.7%	11.3%
SOFTWOOD PLYWOOD	MMSF 3/8"	50.9	113.3	-18.3%	43.6%	11,518	25,577	-18.1%	16.2%
HARDWOOD LUMBER	MMBF	36.7	74.4	-2.9%	12.2%	23,922	50,713	-10.7%	32.9%
HARDWOOD LOGS	MMBF	10.2	18.9	18.0%	-13.3%	10,472	19,999	9.9%	29.0%
HARDWOOD VENEER	MMSFsurf	61.4	116.6	11.3%	-2.8%	5,888	10,877	18.0%	14.4%
PARTICLEBOARD	MMSF 3/4"	12.7	24.4	8.4%	40.8%	2,193	4,550	-7.0%	28.4%
ALL OTHER		NA	NA	NA	NA	38,856	82,154	-10.3%	.0%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	234,799	451,756	8.2%	15.2%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,128.6	2,204.5	4.9%	6.6%	220,160	428,466	5.7%	2.3%
From Canada	MMBF	1,124.5	2,186.7	5.9%	6.3%	219,122	424,579	6.7%	2.2%
SOFTWOOD LOGS	MMBF	3.3	5.9	22.1%	-55.6%	380	676	28.4%	-46.6%
SOFTWOOD PLYWOOD	MMSF 3/8"	9.4	19.8	-10.4%	34.6%	2,849	5,849	-5.0%	102.5%
HARDWOOD LUMBER	MMBF	29.9	66.7	-18.9%	-3.3%	11,684	28,110	-28.9%	-33.1%
HARDWOOD LOGS	MMBF	0.8	2.2	-45.7%	-39.6%	237	605	-35.6%	-10.2%
HARDWOOD VENEER	MMSFsurf	124.3	261.1	-9.1%	49.6%	8,519	17,407	-4.2%	8.6%
HARDWOOD PLYWOOD	MMSF 3/8"	380.4	722.0	11.3%	38.4%	45,461	90,485	1.0%	35.4%
HARDBOARD	MMSFsurf	77.8	160.7	-6.1%	56.6%	5,131	10,388	-2.4%	7.3%
PARTICLEBOARD	MSF 3/4"	43.7	91.8	-9.1%	12.3%	11,259	23,182	-5.6%	8.5%
ALL OTHER		NA	NA	NA	NA	78,596	156,242	1.2%	11.9%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	384,408	761,620	1.9%	6.2%

Note: Volume total is not possible because the products are in different units of measure.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

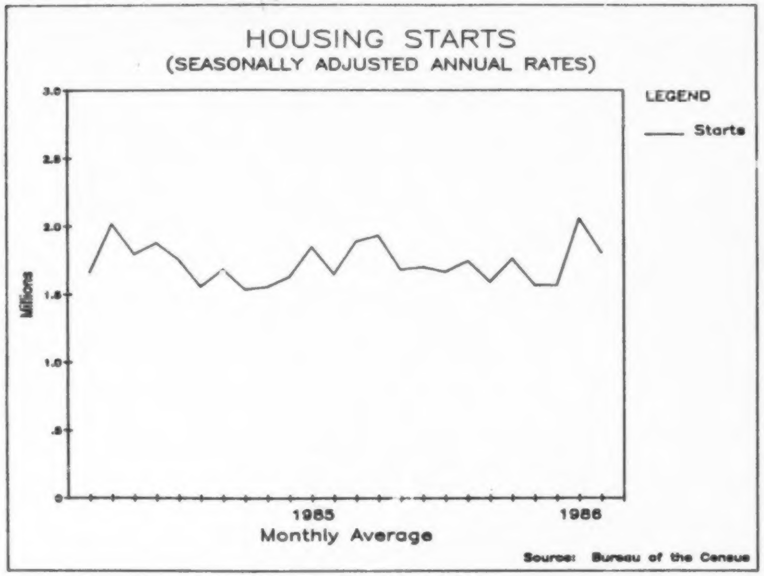
Source: Commerce/FAS

CONSTRUCTION AND HOUSING STATISTICS

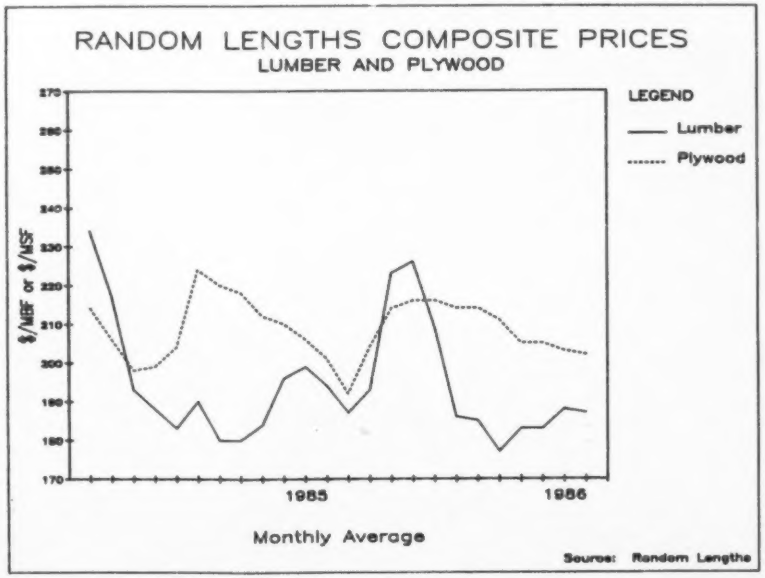
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Feb. '86	Jan. '85	Feb. '85	2 mo. '86	2 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW					
CONSTRUCTION PUT-IN-PLACE	24.0	-1.1%	7.6%	48.3	6.4%
Private	20.2	0.5%	6.3%	40.3	4.7%
Residential	10.3	0.9%	6.8%	20.4	3.1%
Nonresidential & Other	6.9	-0.4%	-26.4%	13.9	-25.8%
Public	3.8	-8.9%	15.2%	8.0	15.6%
	Feb. '86	Jan. '85	Feb. '85	2 mo. '86	2 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	106.8	-7.7%	11.5%	222.5	10.6%
New Private Starts	106.8	-7.6%	11.9%	222.4	10.8%
Seas. Adj. Annual Rate	1803	-5.5%	9.5%		
One-Family Housing Starts	65.2	-9.4%	2.8%	137.2	11.8%
Proportion of Total	61.0%			61.7%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	18,700	-1.1%	-5.1%	37,600	-1.8%

EMPLOYMENT STATISTICS

		----% Change From---	
	Feb. '86	Jan. '85	Feb. '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,649	0.2%	3.6%
All Manufacturing Industries	19,434	-0.1%	-1.6%
Lumber and Wood Products	719	-0.1%	1.6%
Furniture and Fixtures	498	-0.2%	0.2%


HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census


RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Lengths

Table II:

Remaining Contracts After The Buyout
(Oregon, Washington and California)

Estimated Gain or Loss Per MBF	Number Of Contracts	Total Gain or Loss ($MM)	Total Volume (MMBF)
Gain, Greater Than $0	144	$20.7	721.6
Loss, $0 to $75	246	($74.7)	1,732.5
Loss, $75 to $150	242	($185.7)	1,686.5
Loss, $150 to $225	212	($260.4)	1,388.2
Loss, Greater Than $225	213	($418.4)	1,412.2
TOTALS	1,057	($918.5)	6,941.0

SOURCE: Timber Data Company

Some Purchasers Are Better Off Than Others

The impact of these remaining contracts on the industry can be illustrated by looking at purchaser portfolios of pre-1982 sales. The portfolios of 158 purchasers were classified according to total profit or loss (Table/Figure III).

Analysis reveals that only 29 purchasers, holding only 7 percent of the volume of the remaining contracts can avoid a loss on their remaining contracts.

In contrast, 35 percent of the purchasers with pre-1982 contracts (56 in number) could potentially lose up to $1 million, while 46 percent (73 in number) stand to lose more than $1 million on their old contracts. The volume represented by this latter group is approximately 5.9 billion board feet, or 84 percent of the total volume remaining in pre-1982 contracts.

Almost 37% of the remaining volume is held by only six companies which stand to lose over $25 million. These six companies hold 45% of the losses associated with the remaining contracts.

It is important to note that the above calculations are based on a hypothetical harvest date of December 31, 1985 and the estimated delivered log values on that date. In reality, the remaining timber volume, in most cases, has yet to be harvested. A $25/Mbf lumber price increase could change the net values of remaining volume from losers to gainers for about one-third of the purchasers. This would be the case for over 1.4 billion board feet in portfolios with an average loss of $40/Mbf (log scale). However, almost 3.2 billion board feet, or 46 percent of the remaining volume, is held by purchasers who face an average loss of more than $150/Mbf. It is unlikely that product prices will increase enough in the foreseeable future to make these portfolios profitable on their own.

Options -- On the Surface, Few

There is still a considerable volume of timber under contract that could not be harvested profitably in today's market. What will actually happen to most of the remaining volume is still open to speculation. Absent any changes in the Administrations's proposed timber sale program, decreases in Canadian lumber imports, or sizeable increases in lumber prices, individual purchasers appear to face two options -- either harvest the timber at bid prices, or default.

Harvesting the remaining sales may result in losses less than shown in this analysis if a purchaser's costs are below average, or if a purchaser produces a mix of products with a higher than average value. Most of the old contracts have been extended under the Administration's multi-sale extension program, and are due to expire at various times through 1992, with most due before 1990. With the extra time, some purchasers may be able to blend losses from the old contracts with profits from new contracts. However, given the profits in today's market, many purchasers may not be able to harvest enough new volume to offset the losses shown in Table III.

Defaulting the contracts can also be expensive. Default charges are equal to the difference between the original bid and the resale bid. Presumably, adjustments will be made to account for provisions which changed from the old to the new contracts. The Forest Service has not yet determined how these adjustments will be made.

Tracking defaulted sales is difficult, but a contract technically goes into default after the termination date has passed and payment obligations have not been met. About 400 million board feet in pre-1982 contracts were defaulted before the deadline for submitting buyout applications in October, 1985. Approximately 200 million board feet of the old contracts included in Table 2 expired as of December 31, 1985. There are indications that additional contracts have expired without further harvest during the first quarter, 1986 as well.

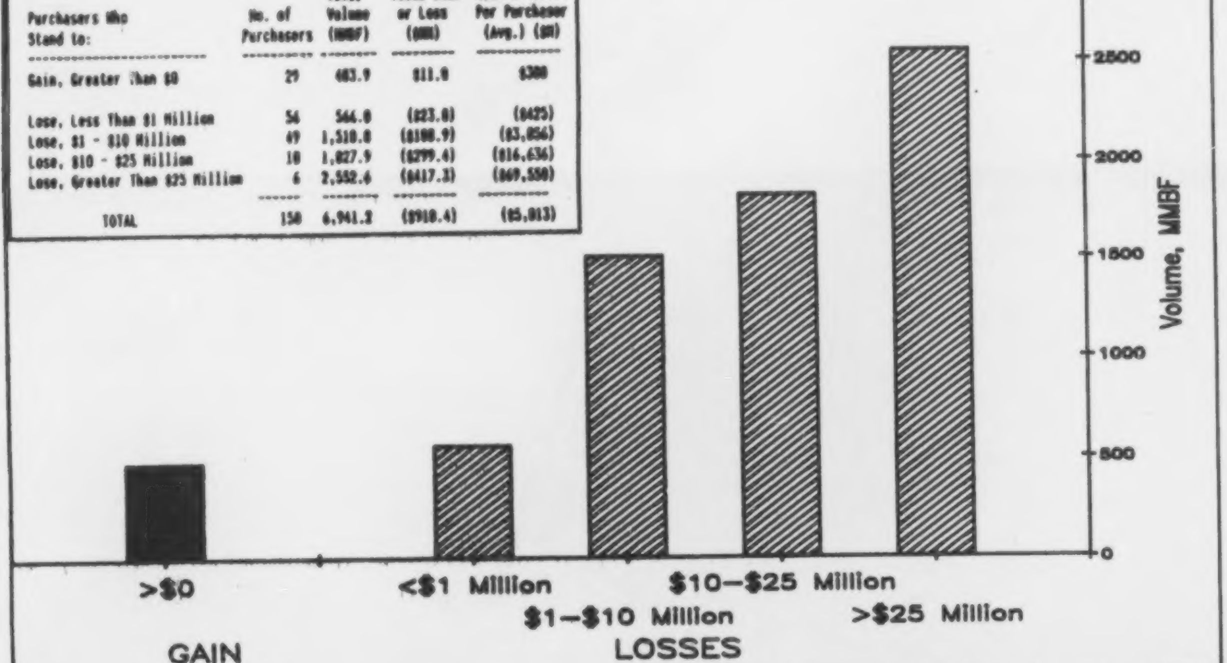
What Happens Now?

Purchasers of Federal timber continue to face potential problems. Timber harvests from the national forests set a recent record in Fiscal Year 1985 of 10.9 billion board feet. The Forest Service projects a harvest level of 11.2 billion board feet in Fiscal Year 1986 and Fiscal Year 1987, yet proposes a Fiscal Year 1987 sale program of only 10 billion board feet -- the lowest program since 1961. An abnormally low sales program only exacerbates the problem of the remaining high priced contracts. If the sales program is as limited as the Administration currently proposes, stumpage prices may rise to a level where margins are insufficient to effectively blend with the losses on any remaining high-priced volume.

The success of the buyout depends on blending the losses on past purchases with profits from newer, lower cost sales. This in turn depends upon an adequate supply of these newer sales--a proposition the Administration does not appear to understand. Anything less will leave purchasers in the exact same condition that the buyout was designed to relieve.

Table/Figure III:
After the Buyout
GAIN OR LOSSES OF REMAINING CONTRACTS

Purchasers Who Stand to:	No. of Purchasers	Total Volume (MMBF)	Total Gain or Loss ($MM)	Gain or Loss Per Purchaser (Avg.) ($M)
Gain, Greater Than $0	29	483.9	$11.0	$380
Lose, Less Than $1 Million	56	566.8	($23.8)	($425)
Lose, $1 - $10 Million	49	1,510.0	($188.9)	($3,855)
Lose, $10 - $25 Million	18	1,827.9	($299.4)	($16,636)
Lose, Greater Than $25 Million	6	2,552.6	($417.3)	($69,550)
TOTAL	158	6,941.2	($918.4)	($5,813)



Source: Timber Data Company; NFPA

A78 70-3

NFPA Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume II Number 5 May, 1986

NFPA'S MID-YEAR FORECAST: A THIRD RECORD CONSUMPTION YEAR IS IN THE WORKS

Long-term lumber demand projections for the 1980's are beginning to pan out. Housing starts in the United States may easily reach the highest level so far this decade, and this year may prove to be the best year since 1978 when over two million units were constructed. As for wood products, 1986 will set a consumption record, for the third year in a row.

This optimistic view at midyear comes after most analysts expected 1986 to be a year of moderate growth, with somewhat fewer housing starts and higher inflation. Our own forecast last fall looked to a lessening of demand, with housing starts running at only 1.65 million units, and lumber production down by 6 percent. But interest rates declined and kicked off a home-buying spree unlike any we've seen in a decade. In fact, during March, sales of new homes soared to 903,000 units, the highest monthly level since October 1978.

The economy as a whole grew at an inflation adjusted rate of 3.7 percent during the first quarter, while the index of leading economic indicators jumped 1.5 percent in April, the third monthly increase in a row. Inflation is currently running at an annual rate of only 2.3 percent (a low rate entirely because oil prices have plummeted), and the dollar is well below its 1985 peak vis a vis the German Mark and Japanese Yen. These are all indicators of an expanding economy, albeit one that still has a lackluster manufacturing sector.

For the wood products industry, current trends come as a relief after four years of depressed earnings. However, few producers in the wood business are grinning widely. Improved performance is relative, and few companies are operating with margins even close to the level during the housing boom of the late 1970's, or with profits indicative of frenetic economic activity. Production and shipments are up in every softwood region, as are new orders for softwood lumber, which were 20 percent higher during the first quarter this year than during the first quarter last year. The increased activity is not quite as dramatic in hardwood lumber markets, but is still indicative of a market with strong demand. The big plus for hardwoods is the change in exchange rates. Exports of hardwood lumber are up 9 percent in volume and nearly 13 percent in value.

The real fear, of course, is that the economy will eventually gear down from overdrive and leave the industry in the dust. New housing is driving force behind this year's pick-up in softwood and panels. An upward move of interest rates and the consequential impact on housing starts could easily set wood producing companies back. North American lumber capacity is such that only a market in superdrive can absorb the supply output. Any slowdown can and will result in more volume on the market than demand, and subsequently impact prices and earnings.

This Year, Perhaps More Than Past Years, Political Issues Bear On The Outlook

The outlook for the balance of 1986 and for 1987 weighs heavily in the

MONTHLY STATISTICAL HIGHLIGHTS

Softwood lumber imports from Canada were up 7.3 percent during the first quarter, accounting for 32% of U.S. consumption.

Shipments of hardwood and softwood lumber were at an annual rate of 41.5 billion board feet in March, up 6.1% percent from February, and 20.8% for March, 1985.

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outcome of several important political developments. Two policy issues must enter into any discussion about the forest products industry this year: Canadian trade and tax reform. The former could dramatically affect the industry in the short term; the latter in the long term. Also on the horizon are U.S. initiatives to cooperate with other countries in managing exchange rate fluctuations, and the further implementation of the Gramm-Rudman-Hollings (G-R-H) budget adjustments.

U.S./Canada Trade War Brewing

During the first quarter, softwood lumber imports were up 7.3 percent in volume over the first quarter last year. Market share was 32 percent. The issues surrounding imports of softwood lumber from Canada will come to a head during the remaining months of 1986, and may well lead to policy changes affecting the level of imports during the fourth quarter.

In a major development, the Coalition for Fair Lumber imports filed a countervailing duty petition with the Department of Commerce on May 19, 1986. The petition alleges that Canadian governments subsidize their wood producing industry by providing timber at substantially below market prices. The petition seeks a 27 percent duty on imported softwood lumber products. Recent interpretations of countervailing duty law by Commerce and growing political attention create an air of expectation that the petition will be successful.

However, the outcome is in no way assured. Commerce must decide whether to accept or reject the petition by June 9. If accepted, the agency will issue a decision by the middle of October. Should Commerce rule with the U.S. petitioners, duties will be imposed immediately, thus sharply curtailing imports during the fourth quarter. In the interim, a negotiated settlement between the two governments is still another possibility, as is Congressional action which might give further impetus for reaching a settlement.

Issues Involve Interesting Politics

The filing of the petition came soon after the Senate Finance Committee voted in April to let the Administration proceed with free trade talks with Canada. The closeness of the vote (10 to 10) underscored a simmering frustration by many in Congress with the Administration's trade efforts. To sway votes for the free trade talks, President Reagan personally called upon every member of the committee. The wood industry supported the Administration's efforts to achieve free trade talks after the President committed to resolving the lumber dispute.

The House of Representatives also passed a omnibus trade bill during the past month containing, among other things, a natural resource subsidy

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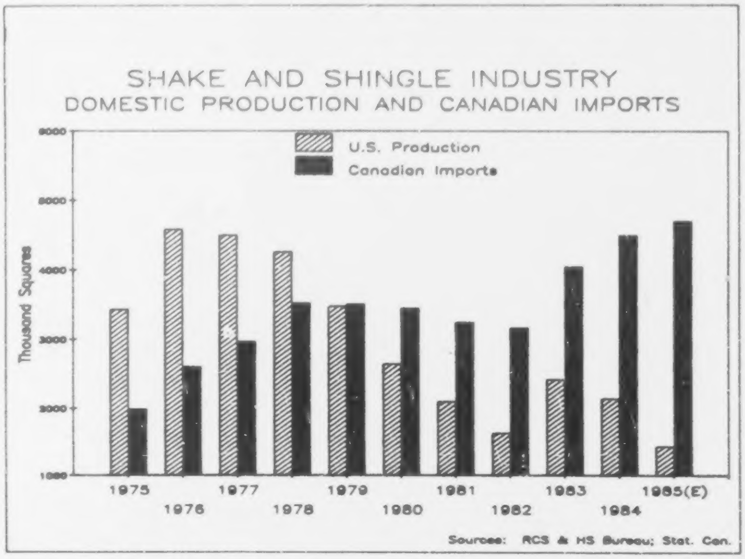
Figure 1:

The shake and shingle industry has suffered declining production at the same time that Canadian imports have been increasing dramatically.



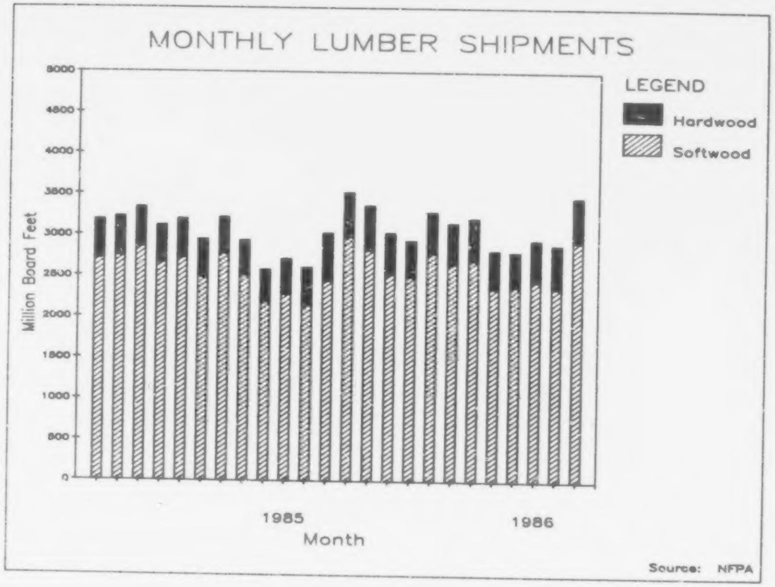
Sources: RCS & HS Bureau; Stat. Can.

NFPA ECONOMICS MONTHLY
May, 1986

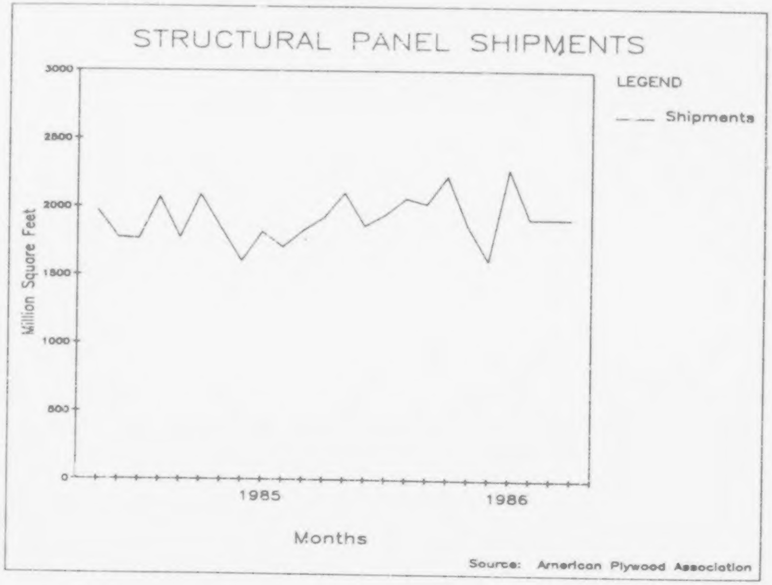
MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION

	MARCH 1986			MARCH 31, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER	(Million Board Feet)				
Southern Pine Region	968	997	986	678	1,852
Douglas Fir Region	739	795	833	638	933
Western Pine Region	828	857	909	553	1,338
California Redwood Region	153	145	167	149	421
Other Softwoods	137	143	148	261	302
TOTAL SOFTWOODS	2,825	2,937	3,043	2,279	4,846
% Change - February 1986	13.2%	23.5%	20.2%	4.9%	-2.3%
% Change - March 1985	11.2%	20.5%	26.8%	22.1%	-0.8%
HARDWOOD LUMBER					
Southern Hardwood Region	262	271	293	280	864
Appalachian Hardwood Reg.	33	35	37	*	*
Other Hardwoods	227	235	254	216	1,074
TOTAL HARDWOODS	522	541	584	496	1,938
% Change - February 1986	-6.6%	2.3%	7.2%	9.5%	-1.0%
% Change - March 1985	-13.7%	-14.4%	-4.9%	14.3%	9.7%
TOTAL LUMBER	3,347	3,478	3,627	2,775	6,784
% Change - February 1986	9.6%	19.6%	17.9%	5.7%	-1.9%
% Change - March 1985	6.4%	13.3%	20.3%	20.7%	2.0%
* Included in Other Hardwoods					
FLOORING	(Thousand Feet)				
Oak Flooring (Bd. Ft.)	NA	12,223	NA	8,192	3,728
Maple Flooring (Sq. Ft.)	998	737	1,021	3,675	1,021
STRUCTURAL PANELS	2,095,722	2,088,182	2,233,430	756,745	488,000
% Change - February 1986	8.8%	9.1%	19.2%	10.5%	31.5%
% Change - March 1985	11.8%	14.3%	15.6%	69.2%	1.3%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

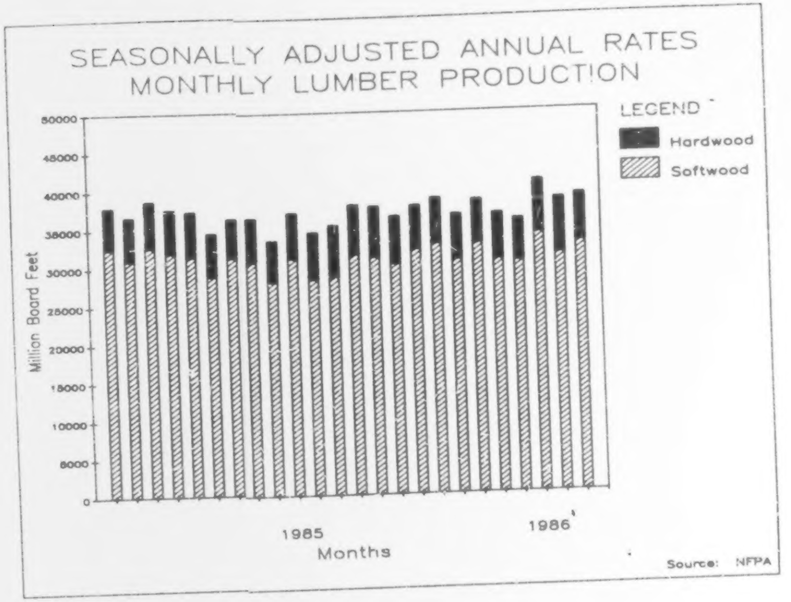
	PRODUCTION Latest Period Available	PRODUCTION % Change	SHIPMENTS Latest Period Available	SHIPMENTS % Change	ORDERS RECEIVED Latest Period Available	ORDERS RECEIVED % Change
	3 mos.'86	3 mos.'85	3 mos.'86	3 mos.'85	3 mos.'86	3 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	9,511	8.7%	9,359	10.8%	9,850	16.1%
TOTAL SOFTWOOD	7,913	10.9%	7,786	13.8%	8,171	19.6%
TOTAL HARDWOOD	1,598	-0.9%	1,573	-2.1%	1,679	1.6%

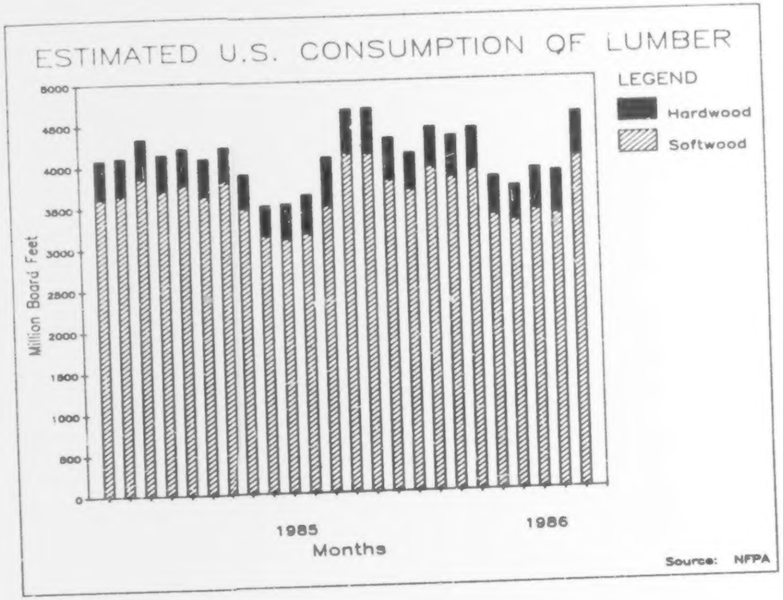
SEASONALLY ADJUSTED ANNUAL RATES

LUMBER REGION	PRODUCTION Mar. '86	PRODUCTION % Change From Feb. '86	PRODUCTION % Change From Mar. '85	SHIPMENTS Mar. '86	SHIPMENTS % Change From Feb. '86	SHIPMENTS % Change From Mar. '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	11,449	6.5%	9.8%	11,684	5.0%	18.6%
Douglas Fir	8,156	1.3%	19.5%	9,221	13.4%	33.0%
Western Pine	9,695	-4.2%	19.6%	10,808	3.9%	45.7%
Calif. Redwood	1,819	10.9%	5.9%	1,835	24.1%	21.6%
Other Softwoods	1,627	2.7%	17.0%	1,742	8.2%	31.9%
TOTAL SOFTWOODS	32,745	1.9%	15.1%	35,290	7.7%	30.6%
TOTAL HARDWOODS	6,177	-10.3%	-15.8%	6,254	-2.3%	-15.1%
TOTAL LUMBER	38,922	-0.3%	8.7%	41,544	6.1%	20.8%

U.S. LUMBER CONSUMPTION

	CURRENT Latest Month Available	CURRENT % Change From	CURRENT % Change From	YEAR-TO-DATE Latest Period Available	YEAR-TO-DATE % Change From
	Mar. '86	Feb. '86	Mar. '85	3 mos.'86	3 mos.'85
	(Million Board Feet)				
Total Consumption	4,574	18.1%	11.1%	12,369	9.3%
Softwood Consumption	4,041	20.5%	16.0%	10,813	11.4%
Hardwood Consumption	533	2.2%	-15.8%	1,556	-3.4%

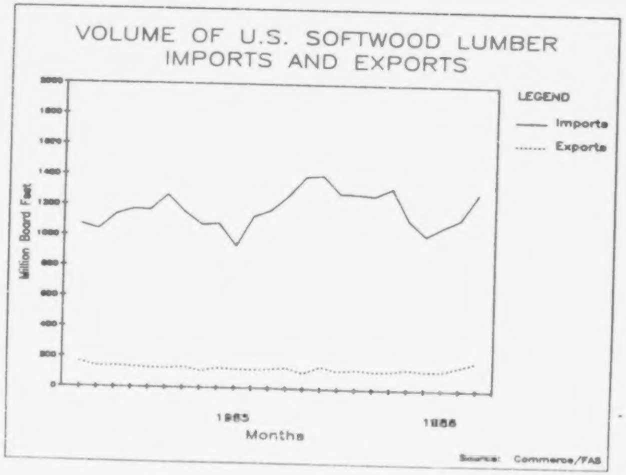




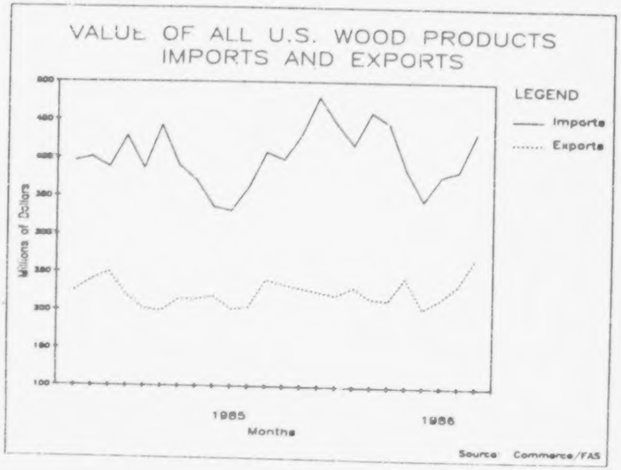
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Mar. '86	3 mo. 1986	% Change From Feb. '86	% Change From 3 mo. 1985	Mar. '86	3 mo. 1986	% Change From Feb. '86	% Change From 3 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	189.2	470.9	22.4%	25.8%	61,536	150,174	25.8%	41.4%
To Canada	MMBF	30.0	86.9	3.9%	34.6%	7,286	21,269	6.1%	23.3%
SOFTWOOD LOGS	MMBF	333.5	869.8	18.8%	-2.6%	101,558	268,444	10.8%	0.7%
SOFTWOOD PLYWOOD	MMSF 3/8"	93.9	207.2	84.3%	65.1%	18,627	44,204	61.7%	69.4%
HARDWOOD LUMBER	MMBF	37.6	112.0	2.5%	9.1%	26,917	77,630	12.5%	12.6%
HARDWOOD LOGS	MMBF	18.3	37.2	78.8%	-2.1%	11,477	31,476	9.6%	-9.3%
HARDWOOD VENEER	MMSFsurf	98.3	214.9	60.1%	13.7%	6,661	17,538	13.1%	12.2%
PARTICLEBOARD	MMSF 3/4"	15.8	40.2	24.9%	61.0%	2,887	7,437	31.6%	97.9%
ALL OTHER		NA	NA	NA	NA	39,299	121,453	1.1%	-2.2%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	269,662	721,418	14.8%	12.3%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,293.6	3,498.0	14.6%	7.9%	255,655	684,121	16.1%	12.1%
From Canada	MMBF	1,273.4	3,460.1	13.2%	7.3%	253,052	677,631	15.5%	11.5%
SOFTWOOD LOGS	MMBF	0.5	6.4	-86.0%	-59.2%	101	777	-73.4%	-85.5%
SOFTWOOD PLYWOOD	MMSF 3/8"	9.1	28.9	-3.0%	20.4%	2,395	8,244	-15.9%	8.0%
HARDWOOD LUMBER	MMBF	28.9	95.6	-3.3%	-9.8%	13,700	41,810	17.3%	-19.8%
HARDWOOD LOGS	MMBF	1.9	4.2	141.6%	-4.3%	269	874	13.5%	49.4%
HARDWOOD VENEER	MMSFsurf	158.[illegible]	419.[illegible]	27.6%	45.4%	10,947	28,354	28.5%	30.8%
HARDWOOD PLYWOOD	MMSF 3/8"	382.5	1,104.5	0.6%	18.4%	45,873	136,358	0.9%	-3.0%
HARDBOARD	MMSFsurf	80.6	241.2	3.6%	48.6%	5,065	15,453	-1.3%	23.1%
PARTICLEBOARD	MSF 3/4"	36.5	128.1	-17.0%	0.7%	9,254	32,436	-17.8%	-15.1%
ALL OTHER		NA	NA	NA	NA	90,375	246,617	15.0%	1.8%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	433,823	1,195,443	12.9%	6.4%

Note: Volume total is not possible because the products are in different units of measure.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

Source: Commerce/FAS

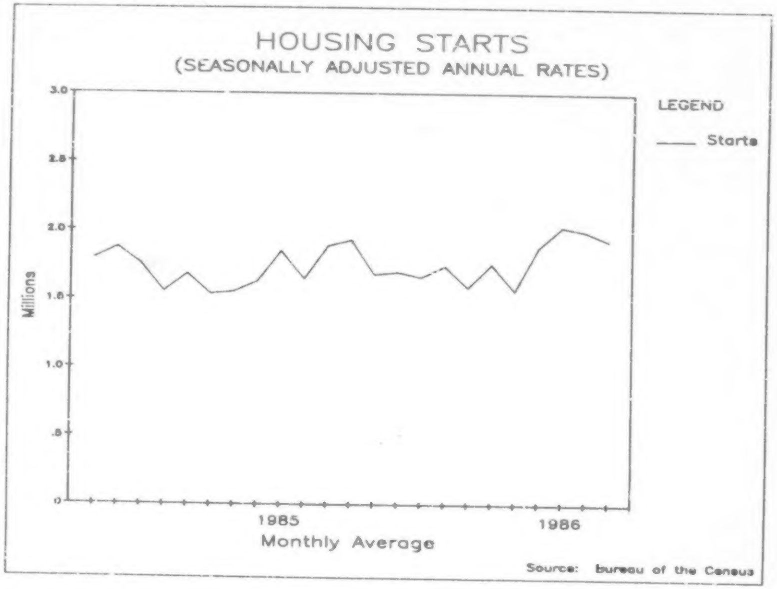
CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Mar. '86	Feb. '85	Mar. '85	3 mo. '86	3 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	25.9	8.7%	5.5%	73.9	5.7%
Private	21.6	8.6%	4.2%	61.5	3.9%
Residential	11.4	13.4%	5.0%	31.7	3.2%
Nonresidential & Other	6.9	2.5%	-29.7%	20.6	-27.9%
Public	4.3	9.3%	13.1%	12.4	16.1%
	Mar. '86	Feb. '85	Mar. '85	3 mo. '86	3 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	148.8	38.8%	2.5%	371.7	7.3%
New Private Starts	148.8	38.8%	2.6%	371.6	7.5%
Seas. Adj. Annual Rate*	1930	-3.5%	2.2%		
One-Family Housing Starts	96.2	47.8%	3.9%	233.3	8.4%
Proportion of Total	64.7%			62.8%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	20,500	9.6%	-14.6%	58,100	-6.7%

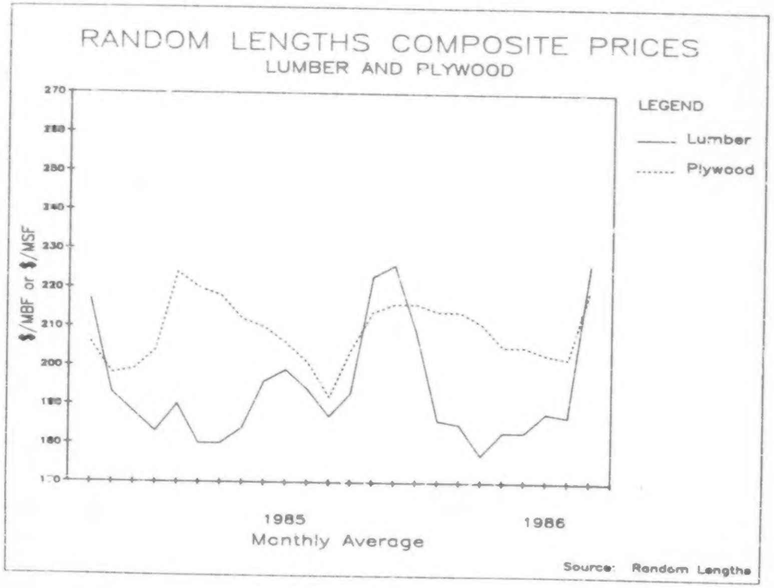
EMPLOYMENT STATISTICS

		----% Change From---	
	Mar. '86	Feb. '85	Mar. '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,834	0.2%	3.0%
All Manufacturing Industries	19,389	-0.3%	-0.7%
Lumber and Wood Products	716	-0.4%	2.1%
Furniture and Fixtures	500	0.2%	0.2%

*Revisions: January, 1986: 2,034; February, 1986: 2,001



Source: Bureau of the Census



Source: Random Lengths

05/27/86

TABLE 1

ESTIMATED TOTAL REGIONAL LUMBER PRODUCTION, SHIPMENTS, AND NEW ORDERS

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	APPALACHIAN HARDWOOD	OTHER HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
PRODUCTION											
1976	7,893	8,322	9,789	2,001	1,688	29,693	3,037	1,173	2,217	6,427	36,120
1977	8,879	8,796	10,309	2,000	1,753	31,737	3,073	1,211	2,417	6,701	38,438
1978	9,231	8,845	10,033	1,902	2,046	32,057	3,258	1,233	2,540	7,031	39,088
1979	9,283	8,427	9,780	1,818	2,124	31,432	3,462	1,263	2,589	7,314	38,746
1980	8,217	6,815	7,613	1,589	2,012	26,246	3,341	1,221	2,553	7,115	33,361
1981	8,415	6,270	7,147	1,452	1,392	24,676	3,374	1,237	1,641	6,252	30,928
1982	8,754	5,743	6,681	1,300	1,309	23,787	2,061	602	2,398	5,062	28,849
1983	10,181	7,934	8,488	1,580	1,543	29,726	2,245	785	2,614	5,644	35,370
1984*											
1ST QUARTER	2,620	2,337	2,252	435	391	8,035	660	220	677	1,557	9,592
2ND QUARTER	2,787	2,264	2,429	444	434	8,328	665	245	701	1,611	9,939
3RD QUARTER	2,692	1,985	2,213	407	373	7,670	714	199	702	1,615	9,285
4TH QUARTER	2,575	1,743	2,098	378	347	7,141	662	147	624	1,433	8,574
TOTAL YEAR	10,674	8,329	8,992	1,664	1,515	31,174	2,701	811	2,704	6,216	37,390
1985*											
1ST QUARTER	2,485	1,862	1,990	451	346	7,134	700	211	701	1,612	8,746
2ND QUARTER	2,914	1,906	2,382	454	391	8,047	770	239	777	1,786	9,833
3RD QUARTER	2,735	1,927	2,514	448	390	8,014	724	185	701	1,610	9,624
4TH QUARTER	2,517	1,925	2,299	389	365	7,495	700	128	638	1,466	8,961
TOTAL YEAR	10,651	7,620	9,185	1,742	1,492	30,690	2,894	763	2,817	6,474	37,164
1986*											
1ST QUARTER	2,699	2,076	2,307	447	384	7,913	787	116	695	1,598	9,511
2ND QUARTER											
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	2,699	2,076	2,307	447	384	7,913	787	116	695	1,598	9,511
SHIPMENTS											
1976	7,782	8,293	9,744	2,044	1,679	29,542	3,032	1,171	2,214	6,417	35,959
1977	8,932	8,781	10,295	2,075	1,759	31,842	3,114	1,225	2,450	6,789	38,631
1978	9,226	8,906	10,067	1,884	2,051	32,134	3,248	1,230	2,530	7,008	39,142
1979	9,255	8,412	9,696	1,760	2,111	31,234	3,326	1,216	2,487	7,029	38,263
1980	8,018	6,821	7,807	1,590	2,012	26,248	3,119	1,142	2,387	6,648	32,896
1981	8,388	6,270	7,183	1,501	1,395	24,737	3,313	1,182	1,602	6,097	30,834
1982	8,464	5,793	6,775	1,349	1,303	23,684	2,127	634	2,488	5,249	28,935
1983	10,214	7,802	8,264	1,582	1,528	29,390	2,312	829	2,708	5,849	35,239
1984*											
1ST QUARTER	2,527	2,196	2,126	421	372	7,642	658	218	673	1,549	9,191
2ND QUARTER	2,780	2,263	2,395	440	402	8,280	653	238	686	1,577	9,857
3RD QUARTER	2,718	2,038	2,284	415	381	7,836	671	180	654	1,505	9,341
4TH QUARTER	2,549	1,912	2,209	397	361	7,428	632	138	593	1,363	8,791
TOTAL YEAR	10,574	8,409	9,014	1,673	1,516	31,186	2,614	774	2,606	5,994	37,180
1985*											
1ST QUARTER	2,418	1,807	1,899	385	332	6,841	698	210	699	1,607	9,448
2ND QUARTER	2,972	2,012	2,422	495	403	8,304	747	226	750	1,723	10,027
3RD QUARTER	2,705	1,890	2,525	438	386	7,944	695	172	668	1,535	9,479
4TH QUARTER	2,501	1,916	2,301	394	364	7,476	696	127	634	1,457	8,933
TOTAL YEAR	10,596	7,625	9,147	1,712	1,485	30,565	2,836	735	2,751	6,322	36,887
1986*											
1ST QUARTER	2,710	2,052	2,264	381	379	7,786	776	113	684	1,573	9,359
2ND QUARTER											
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	2,710	2,052	2,264	381	379	7,786	776	113	684	1,573	9,359
NEW ORDERS											
1976	7,779	8,377	9,760	2,067	1,687	29,670	3,015	1,165	2,200	6,380	36,050
1977	8,970	8,712	10,331	2,119	1,762	31,894	3,163	1,244	2,488	6,895	38,789
1978	9,273	8,894	9,946	1,847	2,043	32,003	3,288	1,239	2,560	7,087	39,090
1979	9,273	8,388	9,630	1,664	2,098	31,053	3,250	1,184	2,429	6,863	37,916
1980	7,964	6,791	7,730	1,563	1,996	26,044	3,060	1,118	2,338	6,516	32,560
1981	8,433	6,200	7,076	1,501	1,387	24,597	3,341	1,198	1,617	6,156	30,753
1982	8,510	5,976	6,880	1,388	1,325	24,079	2,123	650	2,495	5,268	29,335
1983	10,417	7,864	8,350	1,573	1,544	29,748	2,344	834	2,741	5,919	35,667
1984*											
1ST QUARTER	2,426	2,346	2,173	401	375	7,721	694	228	709	1,631	9,352
2ND QUARTER	2,752	2,072	2,311	397	385	7,917	599	235	643	1,477	9,394
3RD QUARTER	2,694	2,055	2,325	426	383	7,883	648	175	634	1,457	9,340
4TH QUARTER	2,470	1,823	2,202	416	353	7,264	642	139	602	1,383	8,647
TOTAL YEAR	10,342	8,296	9,011	1,640	1,496	30,785	2,583	777	2,588	5,948	36,733
1985*											
1ST QUARTER	2,372	1,826	1,905	395	332	6,830	724	210	718	1,652	8,482
2ND QUARTER	2,982	1,987	2,508	505	409	8,391	723	220	727	1,670	10,061
3RD QUARTER	2,797	1,898	2,486	399	387	7,967	705	177	679	1,561	9,528
4TH QUARTER	2,479	1,881	2,274	400	360	7,394	689	125	626	1,440	8,834
TOTAL YEAR	10,630	7,592	9,173	1,699	1,488	30,582	2,841	732	2,750	6,323	36,905
1986*											
1ST QUARTER	2,794	2,162	2,384	435	397	8,172	829	120	730	1,679	9,851
2ND QUARTER											
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	2,794	2,162	2,384	435	397	8,172	829	120	730	1,679	9,851

* SUBJECT TO REVISION.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING

06/06/86

TABLE 2

ESTIMATED REGIONAL SOURCES OF DOMESTIC CONSUMPTION OF LUMBER (NET IMPORTS ALLOCATED)

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
1976	7,641	12,069	10,820	1,981	3,575	36,086	3,054	3,387	6,441	42,527
1977	8,774	14,081	11,626	2,026	4,302	40,809	3,158	3,732	6,890	47,699
1978	9,096	15,133	11,559	1,849	5,003	42,640	3,242	3,755	6,997	49,637
1979	9,060	14,248	10,553	1,729	5,018	40,608	3,342	3,597	6,939	47,547
1980	7,757	11,461	8,509	1,563	4,542	33,832	3,028	3,244	6,272	40,104
1981	8,177	10,828	7,760	1,463	3,836	32,064	3,202	2,653	5,855	37,919
1982	8,232	10,381	7,316	1,327	3,917	31,173	2,031	3,066	5,098	36,270
1983	10,233	14,108	8,848	1,558	4,995	39,742	2,121	3,276	5,397	45,138
1984*										
1ST QUARTER	2,488	3,854	2,284	416	1,308	10,350	636	854	1,490	11,840
2ND QUARTER	2,726	3,965	2,564	425	1,405	11,085	624	908	1,532	12,617
3RD QUARTER	2,682	4,070	2,430	410	1,466	11,058	645	805	1,450	12,508
4TH QUARTER	2,505	3,782	2,329	393	1,355	10,363	613	711	1,323	11,687
TOTAL YEAR	10,402	15,672	9,606	1,643	5,534	42,857	2,518	3,277	5,795	48,652
1985*										
1ST QUARTER	2,381	3,640	2,002	382	1,304	9,708	696	914	1,610	11,318
2ND QUARTER	2,928	4,343	2,582	491	1,643	11,987	742	983	1,726	13,713
3RD QUARTER	2,665	4,127	2,663	434	1,527	11,418	685	830	1,515	12,932
4TH QUARTER	2,458	3,831	2,426	389	1,440	10,544	678	755	1,433	11,977
TOTAL YEAR	10,432	15,941	9,674	1,696	5,914	43,657	2,801	3,482	6,283	49,941
1986*										
1ST QUARTER	2,668	3,957	2,344	378	1,466	10,813	762	793	1,556	12,369
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										
TOTAL YEAR	2,668	3,957	2,344	378	1,466	10,813	762	793	1,556	12,369

* SUBJECT TO REVISION

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHERS.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

06/06/86

TABLE 3

IMPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS											
	DOUGLAS FIR	OTHER FIR	HEMLOCK	SPRUCE	PINE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES (SAWED)	TOTAL LUMBER
1976	744.2	91.3	1,083.8	4,116.0	1,305.4	480.9	8.7	121.2	7,950.8	228.3	8.2	8,187.3
1977	990.7	299.4	1,219.2	5,361.6	1,795.5	537.7	22.2	154.0	10,380.3	341.1	7.4	10,728.8
1978	976.2	508.9	1,219.8	6,312.9	1,916.9	657.5	41.8	190.6	11,824.6	361.4	12.3	12,198.3
1979	827.3	588.3	912.3	6,740.4	1,182.5	632.8	35.4	193.7	11.117.7	376.2	29.3	11,523.2
1980	559.0	440.8	627.8	6,167.9	1,023.9	543.4	20.7	156.6	9,540.1	293.2	31.3	9,864.6
1981	483.3	534.7	467.0	6,010.7	941.2	574.4	17.0	175.9	9,204.7	291.1	24.9	9,520.7
1982	504.3	460.7	293.9	6,341.2	801.6	539.0	29.8	149.4	9,118.9	211.0	26.2	9,356.0
1983	600.3	708.6	416.7	8,354.4	919.8	664.1	23.5	239.9	11,977.4	260.5	12.5	12,250.4
1984												
1ST QUARTER	140.1	151.1	135.0	2,152.8	240.7	190.9	9.4	75.6	3,095.6	85.7	3.1	3,184.4
2ND QUARTER	137.1	168.6	96.8	2,390.5	251.8	136.5	9.0	59.3	3,249.4	87.1	6.6	3,343.1
3RD QUARTER	147.5	264.4	140.5	2,551.2	225.8	200.9	8.9	72.8	3,612.0	73.9	8.0	3,693.9
4TH QUARTER	178.2	181.0	142.6	2,377.0	183.4	176.1	7.7	67.3	3,313.2	81.0	6.5	3,400.7
TOTAL YEAR	603.0	765.1	514.9	9,471.4	901.6	704.1	35.0	275.0	13,270.2	327.7	24.2	13,622.2
1985												
1ST QUARTER	154.6	189.1	171.1	2,257.0	165.8	210.2	26.9	66.9	3,241.6	105.9	3.2	3,350.7
2ND QUARTER	205.9	200.0	185.6	2,907.4	237.8	233.3	10.2	89.2	4,069.3	96.1	11.8	4,177.2
3RD QUARTER	247.4	236.0	151.0	2,685.4	215.0	203.7	14.0	89.3	3,841.8	85.3	7.7	3,934.8
4TH QUARTER	157.1	166.8	136.2	2,543.6	198.6	160.7	16.0	76.1	3,455.1	76.3	5.1	3,536.4
TOTAL YEAR	765.1	791.8	643.9	10,393.4	817.2	807.9	67.1	321.5	14,607.8	363.6	27.7	14,999.1
1986												
1ST QUARTER	157.2	166.5	128.4	2,571.0	152.3	208.1	27.3	87.2	3,498.0	95.6	3.8	3,597.4
2ND QUARTER												
3RD QUARTER												
4TH QUARTER												
TOTAL YEAR												

EXPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS												
	DOUGLAS FIR	SOUTHERN PINE	PONDEROSA/ WHITE PINE	REDWOOD	HEMLOCK	SPRUCE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES \4 (SAWED)	TOTAL \5 LUMBER
1976	571.7	141.4	214.0	61.3	294.2	165.5	60.7	25.7	—	1,584.5	225.5	30.9	1,840.9
1977	488.3	157.8	195.0	48.1	264.2	150.7	61.3	47.9	—	1,412.4	226.1	19.2	1,657.7
1978	456.9	130.5	136.9	34.3	272.5	135.4	59.2	120.1	23.1	1,368.9	320.1	25.8	1,714.8
1979	505.4	195.1	147.7	30.1	463.7	151.1	56.0	179.4	16.2	1,744.7	306.6	90.5	2,141.8
1980	520.8	261.4	168.1	27.3	511.2	136.4	62.0	248.6	29.2	1,956.0	378.6	128.3	2.462.9
1981	509.0	211.2	223.8	37.7	390.2	141.4	66.9	280.6	15.8	1,877.6	405.7	88.8	2,372.1
1982	457.2	231.8	140.8	22.5	391.7	124.9	40.5	206.0	14.8	1,630.2	356.2	34.4	2,020.8
1983	559.3	208.4	197.3	24.0	376.2	113.9	46.8	207.8	10.8	1,744.5	478.2	47.2	2,269.9
1984													
1ST QUARTER	136.8	39.1	46.9	5.5	77.8	24.9	10.7	42.8	2.9	387.5	117.4	30.9	535.9
2ND QUARTER	159.3	53.5	45.0	15.1	81.8	19.8	10.1	56.0	3.8	444.2	129.3	9.4	582.9
3RD QUARTER	131.7	35.7	46.0	5.2	84.8	25.6	9.7	47.8	3.1	389.7	112.4	24.6	526.7
4TH QUARTER	104.3	44.1	36.3	4.4	93.1	27.7	8.7	56.1	3.3	377.9	107.4	19.7	505.0
TOTAL YEAR	532.1	172.4	174.1	30.1	337.4	98.1	39.2	202.7	13.1	1,599.3	466.5	84.6	2,150.4
1985													
1ST QUARTER	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7
2ND QUARTER	130.4	44.4	42.1	3.8	83.2	17.2	7.0	55.2	2.8	385.9	97.3	7.7	490.9
3RD QUARTER	113.2	39.5	44.4	3.5	78.2	14.2	6.4	65.5	3.1	368.1	96.3	17.1	481.4
4TH QUARTER	114.4	43.5	43.4	5.0	101.5	8.4	7.8	61.0	1.9	387.0	100.8	4.5	492.3
TOTAL YEAR	475.6	164.4	167.7	15.7	364.4	60.8	27.4	228.7	10.6	1,515.4	397.1	32.9	1,945.3
1986													
1ST QUARTER	135.9	42.2	49.7	2.9	130.1	24.6	6.8	76.2	2.4	470.9	112.0	4.5	587.4
2ND QUARTER													
3RD QUARTER													
4TH QUARTER													
TOTAL YEAR													

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1. Sawed timber, board planks and scantlings, flooring, box shook and railroad ties.
2. Includes siding and softwood lumber drilled or treated. Beginning 1978 includes siding and flooring. For exports, figures not availa prior to 1978.
3. Includes hardwood flooring, siding and hardwood lumber drilled or treated.
4. Includes a small amount of hewn railroad ties. Beginning with 19[illegible]0 includes mine timber.
5. Includes box shook: 1973 - 4.4 mbf; 1974 - 6.1 mbf; 1975 - 4.1 mbf; 1976 - 6.0 mbf; 1977 - 5.8 mbf. Beginning with 1978 box shook is reported in appropriate species.

SOURCE: Foreign Agricultural Service, U.S. Department of Agriculture; Forest Products Division, BIF, U.S. DOC, from data of the Foreign Trade Division, Bureau of Census.

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

05/27/86

TABLE 4

ESTIMATED GROSS MILL STOCKS OF LUMBER AND UNFILLED ORDERS FOR LUMBER BY REGION

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
GROSS MILL STOCKS										
DECEMBER 31ST										
1976	1,245	949	1,315	434	271	4,214	453	432	885	5,099
1977	1,192	964	1,329	359	265	4,109	412	385	797	4,906
1978	1,197	903	1,295	377	260	4,032	422	398	820	4,852
1979	1,225	918	1,329	435	273	4,230	558	547	1,105	5,335
1980	1,424	912	1,185	434	273	4,228	780	792	1,572	5,800
1981	1,451	912	1,149	385	270	4,167	841	886	1,727	5,894
1982	1,741	862	1,055	336	276	4,270	775	764	1,539	5,809
1983	1,708	994	1,279	334	291	4,606	708	626	1,334	5,940
1984*										
1ST QUARTER	1,801	1,135	1,405	348	310	4,999	710	632	1,342	6,341
2ND QUARTER	1,808	1,136	1,439	352	312	5,047	722	654	1,376	6,423
3RD QUARTER	1,782	1,083	1,368	344	304	4,881	765	721	1,486	6,367
4TH QUARTER	1,808	914	1,257	325	290	4,594	795	761	1,556	6,150
1985*										
1ST QUARTER	1,875	969	1,348	391	304	4,887	797	969	1,766	6,653
2ND QUARTER	1,817	863	1,308	350	292	4,630	820	982	1,829	6,459
3RD QUARTER	1,847	900	1,297	360	296	4,700	849	990	1,904	6,604
4TH QUARTER	1,863	909	1,295	355	297	4,719	853	1,009	1,913	6,632
1986*										
1ST QUARTER	1,852	933	1,338	421	302	4,846	864	1,074	1,938	6,784
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										
ESTIMATED UNFILLED ORDERS										
DECEMBER 31ST										
1976	450	634	554	227	264	2,129	243	157	400	2,529
1977	488	565	590	271	267	2,181	292	214	506	2,687
1978	535	553	469	234	259	2,050	332	253	585	2,635
1979	553	529	403	138	246	1,869	256	163	419	2,288
1980	499	499	326	111	230	1,665	197	90	287	1,952
1981	544	429	219	111	222	1,525	225	121	346	1,871
1982	590	612	324	150	244	1,920	221	144	365	2,285
1983	793	674	410	141	260	2,278	253	182	435	2,713
1984*										
1ST QUARTER	692	824	457	121	263	2,357	289	228	517	2,874
2ND QUARTER	664	633	373	78	246	1,994	235	182	417	2,411
3RD QUARTER	640	650	414	89	248	2,041	212	157	369	2,410
4TH QUARTER	561	561	407	108	240	1,877	222	167	389	2,266
1985*										
1ST QUARTER	515	580	413	118	240	1,866	248	169	417	2,300
2ND QUARTER	525	555	499	128	246	1,953	224	160	364	2,334
3RD QUARTER	617	563	460	89	247	1,976	234	159	390	2,383
4TH QUARTER	595	528	433	95	243	1,894	227	140	373	2,284
1986*										
1ST QUARTER	678	638	553	149	261	2,279	280	216	496	2,775
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										
UNFILLED ORDERS IN RELATION TO GROSS MILL STOCKS (Unfilled Orders As Percentage of Mill Stocks)										
1976	36%	67%	42%	52%	97%	51%	54%	36%	45%	50%
1977	41%	59%	44%	75%	101%	53%	71%	56%	63%	55%
1978	45%	61%	36%	62%	100%	51%	79%	64%	71%	54%
1979	45%	58%	29%	32%	90%	44%	46%	30%	38%	43%
1980	35%	55%	28%	26%	84%	39%	25%	11%	18%	34%
1981	37%	47%	19%	29%	82%	37%	27%	14%	20%	32%
1982	34%	71%	31%	45%	88%	45%	29%	19%	24%	39%
1983	46%	68%	32%	42%	89%	49%	36%	29%	33%	46%
1984*										
1ST QUARTER	38%	73%	33%	35%	85%	47%	41%	36%	39%	45%
2ND QUARTER	37%	56%	26%	22%	79%	40%	33%	28%	30%	38%
3RD QUARTER	36%	60%	30%	26%	82%	42%	28%	22%	25%	38%
4TH QUARTER	31%	61%	32%	33%	83%	41%	28%	22%	25%	37%
1985*										
1ST QUARTER	27%	60%	31%	30%	79%	38%	31%	17%	24%	35%
2ND QUARTER	29%	64%	38%	37%	84%	42%	27%	16%	20%	36%
3RD QUARTER	33%	63%	35%	25%	83%	42%	28%	16%	20%	36%
4TH QUARTER	32%	58%	33%	27%	82%	40%	27%	14%	19%	34%
1986*										
1ST QUARTER	37%	68%	41%	35%	86%	47%	32%	20%	26%	41%
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										

* SUBJECT TO REVISION.
** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHER.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

provision. Enactment of this provision would bolster the effort by the Coalition for Fair Lumber Imports to secure a favorable ruling in the countervailing duty petition. An amendment to strike the provision from the bill was overwhelmingly defeated prior to passage.

Red Cedar Shake and Shingles Win on a 201 Complaint

In a separate proceeding unrelated to the softwood lumber case, the Administration imposed duties for five years on red cedar shakes and shingles from Canada. The Section 201 complaint was brought by the Northwest Independent Forest Manufacturers earlier this year. Section 201 of the 1974 Trade Act gives discretionary authority to the President to aid a domestic industry economically injured by foreign competition. Section 201 provides for a temporary remedy -- in this case, five years -- while the domestic industry implements a plan to increase its competitiveness. Needless to say, the Canadian government has protested vehemently and, as of this writing, has initiated retaliatory measures on selected U.S. products entering Canada.

As a practical matter, the decision on red cedar shakes and shingles will buy some time for producers of this specialty product in the Northwest to become more competitive. Shakes and shingles are a $180 million industry, heavily concentrated in the Pacific Northwest. Figure 1 shows total production of red cedar shakes and shingles during the past decade. The industry employs currently some 1,500 workers in the United States; however, about 70 percent of the production came from Canada last year. Producers in the United States face a timber supply shortage because little red cedar is available commercially in the U.S. The future success of the shake and shingle industry may lie in other species treated for resiliency and fire retardancy.

Canada/U.S. Relations Enter Into 1986 Forecast

There is no way of predicting accurately the outcome of the mounting trade war with Canada, nor it is really possible to predict the full economic effects of any action by the U.S. or Canada given the dynamic nature of the North American economy, and wood markets in particular. Ultimately, the laws of supply and demand will determine price levels, and producers' behavior in supplying the market. But we'll put ourselves out on a limb and guesstimate: should duties (or some other restriction) be imposed, imports during the fourth quarter will decline by 10 to 20 percent. This will have the ultimate impact of lowering the level of imports for the year to a volume of 14.2 billion, or about the same level as 1985. Market share will have been reduced to 31 percent. The impact in the market will most likely be felt in 1987 after the pipeline of pre-duty inventories and shipments clears.

Economic Developments of Other Developments Can't Be Underestimated

A few other prospective developments are worth mentioning for their impact on the wood industry. First, Treasury Secretary Baker is attempting to reach agreement with other industrialized nations to exert more control over exchange rates. Proposals will be discussed by Finance ministers and representatives of parliaments in Zurich at the end of June.

Second, Gramm-Rudman-Hollings stands to affect the industry in a number of important ways. Producers dependent on public timber may find supply shortages in the event that Gramm-Rudman-Hollings leads to reductions in the Forest Service's timber sales program. Other programs important to producers in other regions stand to be affected as well, such as fire suppression and insect control programs. On the upside, getting control of the ballooning deficits should maintain a healthy rate of economic growth with declining real interest rates.

And, Of Course, There's Tax Reform

Gramm-Rudman-Hollings is in some ways intertwined with the outcome of tax reform this year. Preliminary reports indicate that the Senate Finance Committee proposal would result in some revenue swings which would affect the implementation of Gramm-Rudman-Hollings. That unfolding development notwithstanding, the Senate Finance Committee proposal on tax reform has a number of long term implications for the wood industry. In general, for all corporations, the proposal would shift about $100 billion of tax burden away from individuals to corporations. The removal of the investment tax credit (ITC), and addition of an alternative minimum tax, will raise the tax liability of many corporations in the wood industry. This is true even though the maximum corporate rate is reduced from 46 percent to 33 percent.

On the timber side, the proposal increases capital gains tax rates for corporations to a maximum of 33 percent from 28 percent. Timber management costs can be expensed, as under current law. For nonindustrial landowners, capital gains is repealed altogether. Timber income would no longer have a preference.

Manufacturing is impacted by removal of the ITC and changes in accelerated cost recovery schedules. The latter will allow faster write-off for some types of equipment commonly used in the forest industry sector, while increasing it for others.

On the market side, mortgage interest deductions are retained for primary as well as secondary residences. Commercial real estate and rental housing are losers. Depreciation is increased on these investments, while deductibility of interest expenses for passive investors is limited, as are the use of most tax shelters which use tax treatments to show profit.

The forest products industry is seeking to retain those provisions in current law which tend to encourage long-term management of timber resources by both corporations and nonindustrial owners. This bill hurts farmers and others who periodically harvest timber because it increases their tax liability from a maximum of 20 percent under current law (the capital gains rate) to 27 percent (the top individual bracket under the proposal).

The Forecast In Brief

What does all this mean? In brief, demand is strong and will remain so for the balance of the year. We are guessing imports will decline in the last quarter of the year. Demand during the last quarter may decline because of firmer markets (but not enough to preclude a record consumption year again). Exports will be up at least 10 - 15 percent in value, if not in volume. Finally, producers will start reassessing their balance sheets and planned capital expenditures as tax reform unfolds.

THE NFPA FORECAST:

Indicators

	1984	1985 (Est.)	1986 Forecast
Single Family Housing Starts (000)	1084.2	1121.0	1200
Multi-unit HousingStarts (000)	671.6	659.0	650
Mobile Home Shipments (000)	295.2	283.0	280
Other Construction (Billion 1977 $)	122.6	136.5	135
Industrial Production Index (1977 = 100)	121.8	124.5	127
Furniture and Fixtures Index (1977 = 100)	136.7	141.6	149

Production and Trade

	Softwood Lumber (Bil BF)	Hardwood Lumber (Bil BF)	Structural Panels (Bil SF)	Particleboard & MDF (Bil SF)
1984 U.S. CONSUMPTION	42.9	6.2	21.2	4.4
-imports	13.2	0.3	-	0.5
+exports	1.6	0.5	0.4	0.1
=SHIPMENTS	31.3	6.4	21.6	4.0
±inventory change	0.1	0.1	-	0.2
=PRODUCTION	31.2	6.3	21.6	3.8
1985 U.S. CONSUMPTION (Est.)	43.7	6.7	23.0	4.2
-imports	14.6	0.3	-	0.6
+exports	1.5	0.4	0.3	0.1
=SHIPMENTS	30.8	6.8	23.1	3.7
±inventory change	0.1	0.3	-	-
=PRODUCTION	30.7	6.5	23.1	3.7
1986 FORECAST				
U.S. CONSUMPTION	45.4	6.4	23.0	4.2
-imports	14.1	0.3	-	0.4
+exports	1.6	0.4	0.6	0.1
=SHIPMENTS	32.9	6.5	23.6	3.9
±inventory change	0.2	1.0	-	-
=PRODUCTION	32.7	6.6	23.6	3.9

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NFPA Economics Monthly
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ECONOMY WATCH -- GNP REVISED DOWNWARD

The Commerce Department revised downward its estimate of first quarter economic growth from 3.7 percent to 2.9 percent. Sluggishness in the economy was also evident recently with figures on factory output and new orders. The agency reports that factory operating rates in April were down 2.2 percent during the first four months of 1986.

In the meantime, housing continues to benefit from lower interest rates. Although new starts fell seven percent in May, the annual rate of new starts still exceeded 1.8 million for the month. The percentage of single-family starts during May was 67 percent, up substantially from previous months. Last year's single-family starts represented 63.4 percent of the total for the same period.

ENERGY SELF-SUFFICIENCY PREVAILS IN WOOD PRODUCTS MANUFACTURE

Companies reporting energy data to the National Forest Products Association (NFPA) improved energy efficiency by 38.7 percent in 1985 when compared with a reference year of 1978. This result parallels an increase in the use of wood fuels over the period. Companies now rely on wood and wood-derived fuels for 76 percent of their total energy needs, up from 68.9 percent in 1978.

NFPA annually collects energy data from thirteen large energy consumers in the wood products industry. The companies supplying information for 1985 are integrated companies representing mills in every U.S. region, and together operate an estimated 400 lumber, panel product, flooring, millwork and treated product mills.

Compared with the pulp and paper segment of the forest-based industry, and many other manufacturing sectors, the wood products industry is not energy intensive. Energy costs account for only about two percent of the value of wood products shipments (energy costs as a percent of shipments of pulp and paper is approximately 11.2 percent). But for many companies, energy represents one area where costs can be controlled through prudent investments in plant and equipment. According to a survey of new boiler sales conducted by the American Boilers Manufacturers Association, 100 percent of the steaming capacity represented by sales to the lumber and wood products industry since 1982 use wood

MONTHLY STATISTICAL HIGHLIGHTS

Lumber shipments, softwood and hardwood, were up 5.7 percent during the first four months of the year.

Imports of Canadian softwood lumber in May were up 5.8 percent since April, and up 7.2 percent year-to-date from the same period last year. This represents a market share of 32.5 percent so far in 1986.

The value of total exports was up 9 percent during the first four months from the same period last year. For the same period, the value of softwood plywood exports was up 80.6 percent; volume was up 72.2 percent.

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fuel as the principal fuel. (Table I.) In addition, many companies have found they can sell electric power, much of which is cogenerated, further lowering their costs. In 1985, reporting companies generated a total of 457.6 million Kwh of electric power in their wood products operations for internal use or resale.

Table II summarizes energy consumption of the reporting companies by energy source for each of the past eight years.

Table I: New boiler sales in recent rs use wood as their principal fuel.

SALES OF NEW BOILERS TO THE LUMBER & WOOD PRODUCTS INDUSTRY

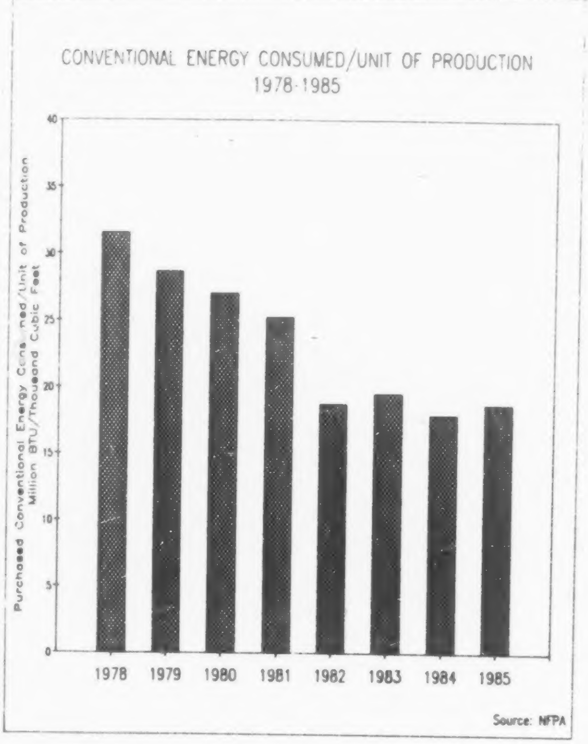
Year	Number of Units	Total Steaming Capacity (000's PPH)	Percent With Wood as Principal Fuel
1972	26	1,641	72%
1973	70	4,717	89%
1974	40	3,554	66%
1975	7	2,004	69%
1976	10	1,366	48%
1977	24	1,494	97%
1978	25	1,989	88%
1979	20	1,513	96%
1980	7	540	100%
1981	14	962	100%
1982	8	1,130	100%
1983	2	205	100%
1984	13	995	100%
1985	5	365	100%

Source: American Boiler Manufacturers Assn.
Compiled by API

Total energy use in 1985 was 157,321.3 billion Btu's, of which 119,528.9 billion Btu's were from wood sources. Total energy usage decreased slightly from 1984. Despite lower oil prices, which dropped dramatically during the second half of 1985, companies did not increase their proportionate overall use of residual or distillate fuel oil for the year.

Table III identifies the product mix of the reporting companies. Standard measures for all product lines were converted to a common cubic foot equivalent. In 1985, conventional energy usage (excluding wood fuels) per unit of production was calculated to be 18.7 Btu's. This is 41 percent lower than reported for 1978, although up slightly (4.5 percent) from 1984. Figure 1 illustrates energy consumption per unit of production since 1978.

Figure 1: Energy usage per unit of production show a decline in recent years.



Source: NFPA

Table II: Energy consumption statistics for thirteen large lumber producing companies.

ENERGY CONSUMPTION OF THIRTEEN REPORTING COMPANIES BY ENERGY SOURCE
LUMBER AND WOOD PRODUCTS INDUSTRY

		1985			1984			1983			1982		
ENERGY SOURCE	UNITS	ACTUAL USE	BILLION BTU	% OF TOTAL	ACTUAL USE	BILLION BTU	% OF TOTAL	ACTUAL USE	BILLION BTU	% OF TOTAL	ACTUAL USE	BILLION BTU	% OF TOTAL
Purchased Electricity	MMKWH	4736.0	16159.3	10.3%	5178.4	17668.8	11.3%	5189.6	17707.0	11.1%	4332.4	14781.7	10.6%
Purchased Steam	MMLBS	5662.1	7193.5	4.6%	1736.5	2176.3	1.4%	2284.3	2730.9	1.7%	868.5	1006.9	0.7%
Natural Gas	MMCF	7409.6	7524.1	4.8%	9261.6	9431.2	6.0%	9637.1	9813.8	6.1%	8008.6	8170.2	5.8%
Liquid Propane Gas	M GALS	13361.3	1249.6	0.8%	12012.2	1126.5	0.7%	12563.3	1179.0	0.7%	9496.4	891.9	0.6%
Gasoline	M GALS	2563.8	311.1	0.2%	1998.5	249.9	0.2%	2258.7	282.9	0.2%	2103.4	263.3	0.2%
Kerosene	M GALS	301.2	0.4	0.0%	9.9	1.3	0.0%	6.3	0.9	0.0%	6.5	0.9	0.0%
Distillate Fuel Oil (includes diesel)	M BBLS	623.2	1887.1	1.2%	311.6	1828.8	1.2%	374.4	1836.6	1.2%	260.9	1510.1	1.1%
Residual Fuel Oil	M BBLS	5888.7	890.5	0.6%	164.3	1035.0	0.7%	206.1	1695.7	1.1%	248.4	1564.6	1.1%
Coal	M Tons	99.9	2576.9	1.6%	104.4	2690.5	1.7%	106.8	2751.7	1.7%	87.2	2072.6	1.5%
Other Purchased Energy			0.0	0.0%		0.0	0.0%		327.8	0.2%		12.6	0.0%
Total Purchased Electricity, Steam and Fossil Fuels			37792.4	24.0%		36208.2	23.1%		38326.3	24.0%		30274.8	21.6%
Self Generated Hogged Fuel, Wood, and Bark	M Tons	9447.8	102843.7	65.4%	10137.7	109897.6	70.0%	12185.7	110808.9	69.4%	8644.3	97713.6	69.9%
Purchased Hogged Fuel, Wood, and Bark	M Tons	799.7	7537.4	4.8%	1073.7	10627.6	6.8%	1118.9	10340.6	6.5%	1244.1	11729.9	8.4%
Other Self-Generated and Residue Fuels			9147.8	5.8%		226.6	0.1%		224.7	0.1%		156.2	0.1%
Total Hogged Fuel, Wood, and Residue Fuels			119528.9	76.0%		120751.8	76.9%		121374.2	76.0%		109599.7	78.4%
TOTAL ALL ENERGY			157321.3	100.0%		156960.0	100.0%		159700.5	100.0%		139874.5	100.0%

(CONT'D)

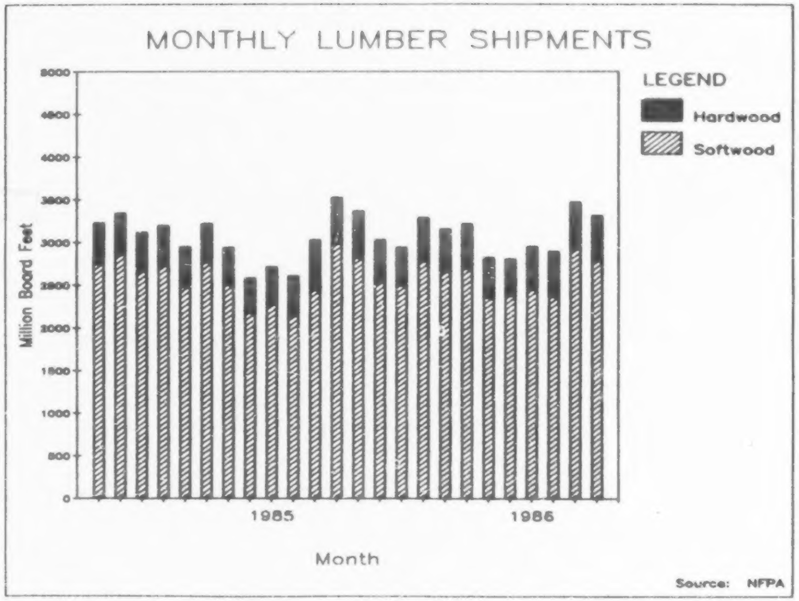
ENERGY CONSUMPTION OF THIRTEEN REPORTING COMPANIES BY ENERGY SOURCE
LUMBER AND WOOD PRODUCTS INDUSTRY

		1981			1980			1979			1978 (REFERENCE YEAR)		
ENERGY SOURCE	UNITS	ACTUAL USE	BILLION BTU	% OF TOTAL	ACTUAL USE	BILLION BTU	% OF TOTAL	ACTUAL USE	BILLION BTU	% OF TOTAL	ACTUAL USE	BILLION BTU	% OF TOTAL
Purchased Electricity	MMKWH	4913.1	16763.3	10.7%	4879.6	16649.1	10.2%	5376.6	18333.5	9.9%	5423.7	19338.3	10.3%
Purchased Steam	MMLBS	1597.6	1842.4	1.2%	2886.0	3351.4	2.1%	1619.5	1943.4	1.1%	1509.9	1961.4	1.0%
Natural Gas	MMCF	15065.7	15349.4	9.8%	14944.9	15212.8	9.3%	17685.1	17976.7	9.7%	18383.2	19506.3	10.4%
Liquid Propane Gas	M GALS	7833.5	736.2	0.5%	7733.7	725.1	0.4%	9824.6	915.1	0.5%	12662.3	1260.5	0.7%
Gasoline	M GALS	2003.8	251.0	0.2%	3048.5	381.4	0.2%	2770.4	346.5	0.2%	2827.1	353.4	0.2%
Kerosene	M GALS	4.2	0.6	0.0%	7.7	1.1	0.0%	1.0	0.1	0.0%	1.8	0.2	0.0%
Distillate Fuel Oil (includes diesel)	M BBLS	322.4	1871.9	1.2%	392.3	2269.2	1.4%	422.5	2433.3	1.3%	531.5	3493.5	1.9%
Residual Fuel Oil	M BBLS	229.1	1442.8	0.9%	637.4	4015.4	2.5%	1309.1	8222.8	4.5%	1532.5	9690.9	5.2%
Coal	M Tons	96.7	2492.2	1.6%	112.1	2887.3	1.8%	94.9	2441.4	1.3%	103.6	2669.5	1.4%
Other Purchased Energy			0.0	0.0%		0.0	0.0%		0.0	0.0%		0.0	0.0%
Total Purchased Electricity, Steam and Fossil Fuels			40749.8	26.1%		45492.8	27.9%		52612.8	28.5%		58274.0	31.1%
Self Generated Hogged Fuel, Wood, and Bark	M Tons	9836.1	106180.5	67.9%	11502.5	112387.2	68.9%	12391.8	124785.0	67.5%	12269.7	122804.0	65.6%
Purchased Hogged Fuel, Wood, and Bark	M Tons	949.6	9279.4	5.9%	489.8	4363.1	2.7%	664.6	5331.1	2.9%	474.3	3872.2	2.1%
Other Self-Generated and Residue Fuels			163.8	0.1%		845.3	0.5%		2040.2	1.1%		2261.1	1.2%
Total Hogged Fuel, Wood, and Residue Fuels			115623.7	73.9%		117595.6	72.1%		132156.3	71.5%		128937.3	68.9%
TOTAL ALL ENERGY			156373.5	100.0%		163088.4	100.0%		184769.1	100.0%		187211.3	100.0%

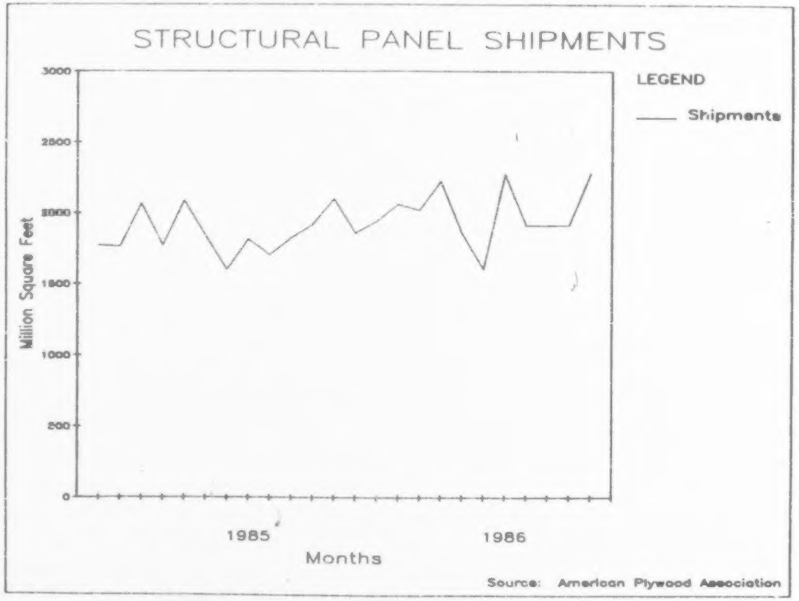
NFPA ECONOMICS MONTHLY
June, 1986

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	APRIL 1986			APRIL 30, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	878	842	781	618	1,888
Douglas Fir Region	739	723	679	594	949
Western Pine Region	893	891	836	498	1,340
California Redwood Region	177	194	186	141	404
Other Softwoods	137	135	127	253	305
TOTAL SOFTWOODS	2,824	2,785	2,609	2,104	4,886
% Change - March 1986	-0.3%	-5.4%	-14.5%	-7.7%	0.8%
% Change - April 1985	2.2%	-6.3%	-19.5%	-1.5%	4.4%
HARDWOOD LUMBER					
Southern Hardwood Region	257	256	243	267	865
Appalachian Hardwood Reg.	47	47	45	*	*
Other Hardwoods	234	233	221	202	1,075
TOTAL HARDWOODS	538	536	509	469	1,940
% Change - March 1986	3.1%	-0.9%	-12.8%	-5.4%	0.1%
% Change - April 1985	-10.3%	-7.4%	-9.6%	12.2%	8.6%
TOTAL LUMBER	3,362	3,321	3,118	2,573	6,826
% Change - March 1986	0.2%	-4.7%	-14.2%	-7.3%	0.6%
% Change - April 1985	-0.1%	-6.5%	-18.1%	0.7%	5.6%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	12,404	NA	8,569	3,624
Maple Flooring (Sq. Ft.)	1,253	979	1,269	3,854	2,563
STRUCTURAL PANELS	2,371,148	2,281,282	2,119,455	623,058	746,000
% Change - March 1986	13.1%	9.2%	-5.1%	-17.7%	139.9%
% Change - April 1985	24.5%	18.7%	5.6%	16.9%	72.9%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

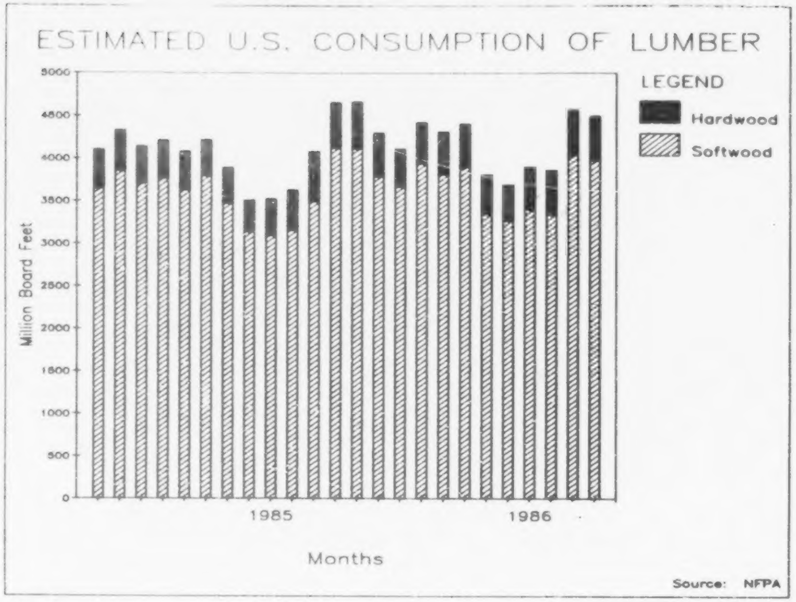
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	4 mos.'86	4 mos.'85	4 mos.'86	4 mos.'85	4 mos.'86	4 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	12,881	6.4%	12,687	5.7%	12,976	5.6%
TOTAL SOFTWOOD	10,745	8.6%	10,578	7.8%	10,788	7.1%
TOTAL HARDWOOD	2,136	-3.4%	2,109	-3.5%	2,188	-1.2%

SEASONALLY ADJUSTED ANNUAL RATES

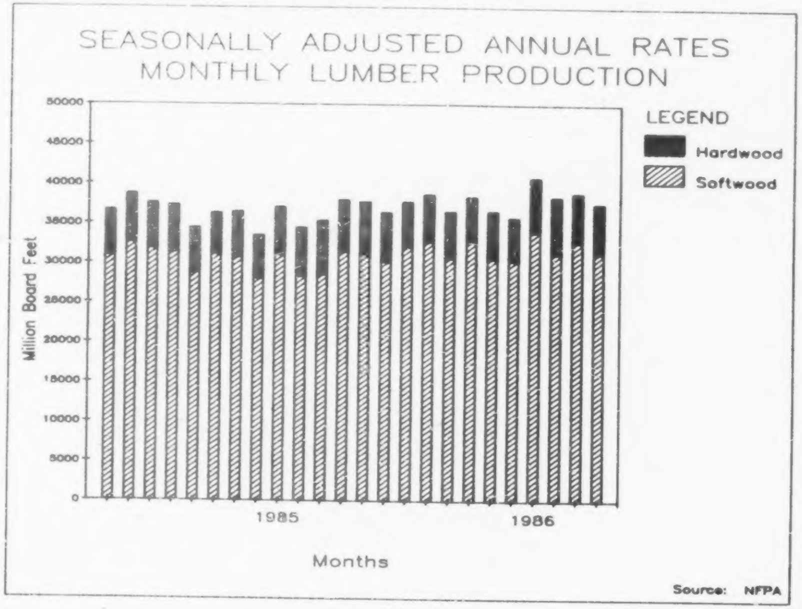
LUMBER REGION	PRODUCTION			SHIPMENTS		
		---% Change From---			---% Change From---	
	Apr. '86	Mar. '86	Apr. '85	Apr. '86	Mar. '86	Apr. '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	9,972	-13.5%	-12.8%	9,768	-17.0%	-24.9%
Douglas Fir	8,035	-1.5%	6.2%	7,905	-14.3%	1.1%
Western Pine	9,628	-0.7%	5.2%	9,942	-8.0%	5.7%
Calif. Redwood	2,131	17.2%	36.3%	2,187	19.2%	26.5%
Other Softwoods	1,537	-6.2%	-0.3%	1,544	-11.4%	-3.8%
TOTAL SOFTWOODS	31,303	-4.7%	0.1%	31,346	-11.4%	-6.6%
TOTAL HARDWOODS	6,291	1.8%	-10.4%	6,112	-2.3%	-7.3%
TOTAL LUMBER	37,594	-3.6%	-1.8%	37,458	-10.0%	-6.7%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Apr. '86	Mar. '86	Apr. '85	4 mos.'86	4 mos.'85
	(Million Board Feet)				
Total Consumption	4,502	-1.7%	-3.8%	16,877	5.5%
Softwood Consumption	3,981	-1.7%	-3.0%	14,801	7.2%
Hardwood Consumption	520	-2.3%	-9.6%	2,076	-5.0%


ESTIMATED U.S. CONSUMPTION OF LUMBER

Source: NFPA

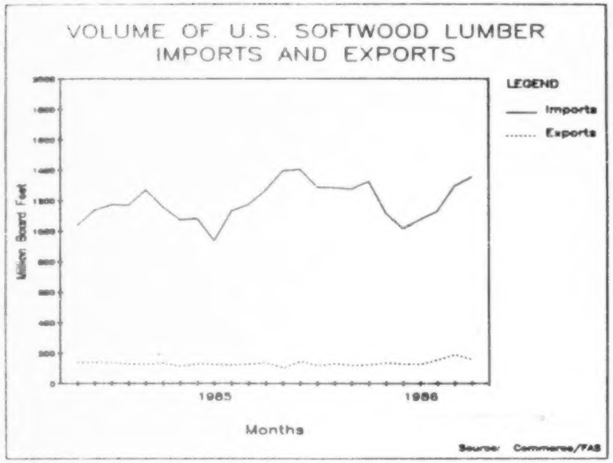

SEASONALLY ADJUSTED ANNUAL RATES
MONTHLY LUMBER PRODUCTION

Source: NFPA

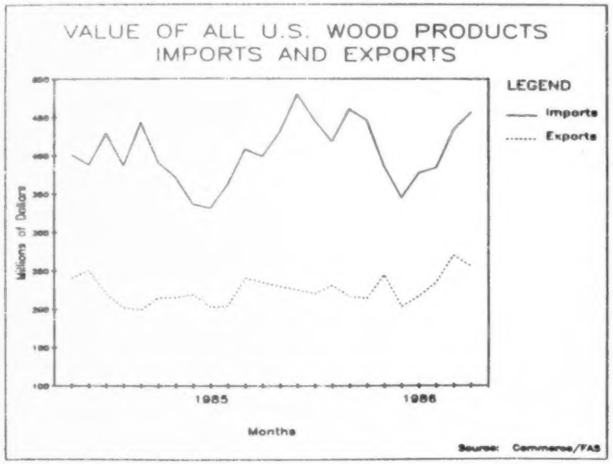
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		Apr. '86	4 mo. 1986	% Change From Mar. '86	% Change From 4 mo. 1985	Apr. '86	4 mo. 1986	% Change From Mar. '86	% Change From 4 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	157.7	628.5	-16.7%	23.1%	51,753	201,926	-15.9%	15.9%
To Canada	MMBF	33.3	120.3	11.2%	31.6%	8,301	29,567	13.9%	18.6%
SOFTWOOD LOGS	MMBF	304.8	1,174.6	-8.6%	-2.9%	101,580	370,024	.0%	-0.3%
SOFTWOOD PLYWOOD	MMSF 3/8"	49.1	256.3	-47.7%	72.2%	10,208	54,413	-45.2%	81.3%
HARDWOOD LUMBER	MMBF	40.9	152.9	8.8%	12.1%	27,983	105,614	4.0%	28.8%
HARDWOOD LOGS	MMBF	11.5	48.7	-37.0%	0.9%	12,062	43,538	5.1%	23.3%
HARDWOOD VENEER	MMSFsurf	73.1	288.0	-25.7%	12.7%	6,334	23,872	-4.9%	15.6%
PARTICLEBOARD	MMSF 3/4"	13.0	53.2	-18.1%	58.0%	2,843	10,280	-1.5%	53.2%
ALL OTHER		NA	NA	NA	NA	42,074	163,527	7.1%	-0.2%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	255,463	976,880	-5.3%	9.0%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,354.0	4,852.0	4.7%	7.6%	286,978	971,099	12.3%	20.2%
From Canada	MMBF	1,346.7	4,806.8	5.8%	7.2%	284,640	962,271	12.5%	20.1%
SOFTWOOD LOGS	MMBF	5.2	11.6	1039.6%	-49.0%	338	1,115	234.7%	-80.6%
SOFTWOOD PLYWOOD	MMSF 3/8"	11.1	40.0	22.4%	35.9%	2,691	10,935	12.4%	106.2%
HARDWOOD LUMBER	MMBF	23.9	119.5	-17.4%	-11.2%	12,824	54,637	-6.4%	-5.3%
HARDWOOD LOGS	MMBF	1.4	5.6	-25.4%	13.6%	286	1,161	6.3%	17.7%
HARDWOOD VENEER	MMSFsurf	122.8	542.5	-22.6%	36.0%	8,456	36,810	-22.8%	-1.7%
HARDWOOD PLYWOOD	MMSF 3/8"	277.9	1,382.4	-27.3%	13.7%	32,721	169,079	-28.7%	-14.6%
HARDBOARD	MMSFsurf	66.8	308.0	-17.1%	43.0%	4,142	19,596	-18.2%	12.2%
PARTICLEBOARD	MSF 3/4"	44.2	172.4	21.9%	-1.4%	11,602	44,038	25.4%	9.4%
ALL OTHER		NA	NA	NA	NA	96,490	343,107	6.8%	18.8%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	456,837	1,652,280	5.3%	14.7%

Note: Volume total is not possible because the products are in different units of measure.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

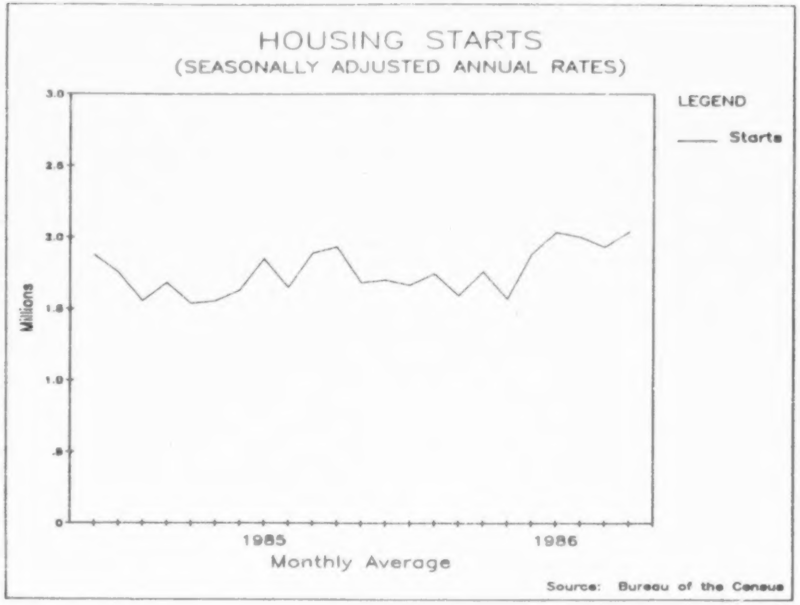
Source: Commerce/FAS

CONSTRUCTION AND HOUSING STATISTICS

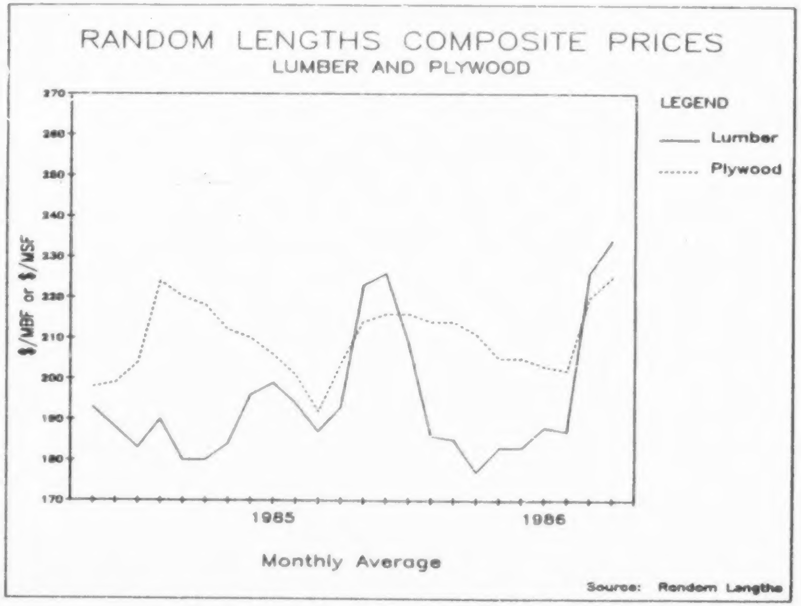
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	Apr. '86	Mar. '85	Apr. '85	4 mo. '86	4 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	27.8	7.8%	4.1%	101.7	5.3%
Private	22.8	6.5%	1.9%	84.2	3.2%
Residential	12.6	9.6%	9.3%	44.3	4.9%
Nonresidential & Other	6.9	3.0%	-36.4%	27.2	-30.9%
Public	5.0	13.6%	15.2%	17.5	16.4%
	Apr. '86	Mar. '85	Apr. '85	4 mo. '86	4 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	189.8	25.7%	7.8%	563.7	7.9%
New Private Starts	189.8	25.7%	8.0%	563.6	8.1%
Seas. Adj. Annual Rate	2039	4.0%	5.3%		
One-Family Housing Starts	120.3	24.0%	10.7%	354.4	9.4%
Proportion of Total	63.4%			62.9%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	22,900	11.7%	-12.6%	81,000	-8.5%

EMPLOYMENT STATISTICS

		----% Change From----	
	Apr. '86	Mar. '85	Apr. '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,797	0.3%	2.8%
All Manufacturing Industries	19,247	.0%	-1.1%
Lumber and Wood Products	720	0.7%	3.7%
Furniture and Fixtures	494	0.2%	-0.6%


HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census


RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Lengths

Table III: Product mix of the companies participating in the SIC 24 energy reporting program.

PRODUCTION MIX OF REPORTING COMPANIES
(THOUSAND CUBIC FEET)

	1985	%	1984	%
Lumber	575,098.7	28.5%	578,830.0	28.7%
Plywood & Veneer	466,821.7	23.2%	436,352.9	21.6%
Chips	710,853.6	35.3%	667,666.9	33.1%
Particleboard	131,797.7	6.5%	153,307.4	7.6%
Other Board Products	21,252.7	1.1%	46,103.7	2.3%
Treated Wood Products	7,862.6	0.4%	14,473.4	0.7%
Other Products	102,106.4	5.1%	120,832.5	6.0%
TOTAL	2,015,793.4	100.0%	2,017,566.8	100.0%

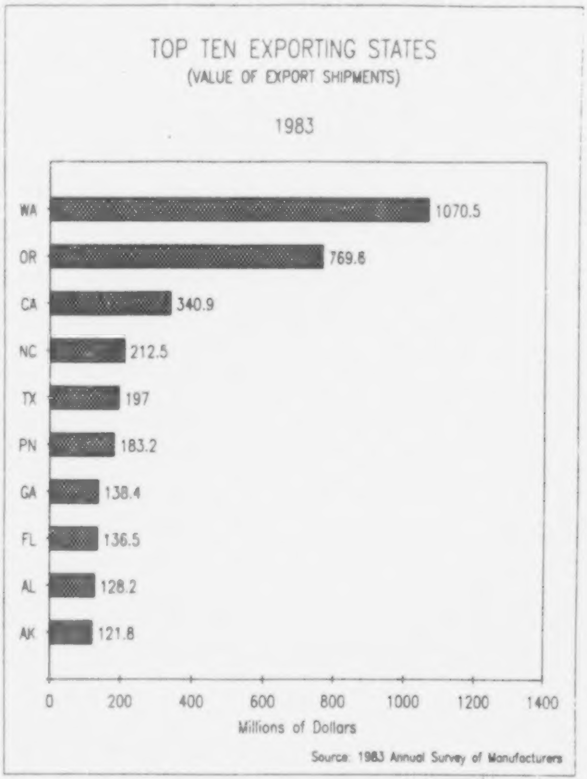
1982 CENSUS OF RETAIL TRADE FINDS 24,940 LUMBER YARDS

In 1982, there were an estimated 24,940 retailers whose main business was the sale of lumber and wood products. These establishments accounted for $31.4 billion in total sales, of which approximately 27 percent was lumber and nine percent plywood. California is the nation's leading state for retail sales of wood products with $3.1 billion in 1982. The payroll of retail lumber establishments totaled $3.7 billion, with the labor force estimated at 263,000 employees.

WASHINGTON LEADS STATE LIST OF WOOD PRODUCT EXPORTERS

Almost one-quarter of all wood products exports originate in the state of Washington. The 1983 Annual Survey of Manufactures reports $1.1 billion of wood products exports from the state. Oregon and California shipped $770 million and $340 million respectively. (Figure 2.) As a market for wood products, exports are most important for the state of Alaska, where 49 percent of the value of shipments is exported to other countries. Exports from Washington account for nearly 26 percent of its shipments, while the state of Pennsylvania exports 12 percent of its wood products. For the industry overall, approximately nine percent of shipments are exported. This is up from less than four percent a decade ago. The major buyer of U.S. wood products is Japan, which primarily buys softwood logs and chips.

Figure 2: Top ten states in value of export shipments.



Source: 1983 Annual Survey of Manufacturers

STATE FOCUS: ALABAMA GROWS ON TREES

Alabama's forest industry is intertwined with the history of the state itself, a traditionally rural one whose land uses have dominated its economy. The forest-based industry, combining the logging, pulp, paper and solid wood segments, is the largest manufacturing and export industry in the state. (Table IV.) It employs 50,000 people and brings in about $4 billion annually to the state's economy.

In 1984, the state's forest industry consisted of some 1,750 establishments, including logging companies, sawmills, veneer mills, pulp and paper mills, wood chip mills, planing mills, preservative treating plants, plywood mills and other wood-related operations. Approximately 43 percent of Alabama's annual harvest goes to solid wood products, the balance to pulp and paper.

When considered alone, the lumber and wood products industry currently is the sixth-largest manufacturing industry and the third-largest employer in Alabama. It employs 27,000 people, numbers over 1,600 establishments and accounts for $2 billion of annual shipments. Figure 3 details Alabama's employment by county.

Table IV: The lumber and paper industries are leading forces in the economy of Alabama.

ALABAMA
INDUSTRY STATISTICS ON LUMBER AND PAPER

	Lumber & Wood Products	Pulp & Paper
Value of Shipments ($ Million)	$2,037.6	$3,987.7
Total Employment (Thousands)	27.0	19.5
Value of Exports ($ Million)	$128.2	$450.0
Export-Related Employment (Thousands)	1.8	2.1

Source: Dept. of Commerce, 1983 Annual Survey of Manuf.

U.S. Forest Service Survey Shows Ten Year Resource Changes

The 1982 Forest Service survey of Alabama's timber resources highlights important shifts in forest characteristics, and numerous opportunities for improved forest management.

Unlike the situation in other states where forestland appears to be declining, total forested acreage in Alabama increased between 1972 and 1982. Conversions to agriculture, development and other withdrawals were offset by acres diverted back into timber, thus netting a gain of 326,000 acres.

Ownership of Alabama's 21.7 million acres is mostly private, with 74 percent nonindustrial and 21 percent industry-owned. The balance -- approximately one million acres -- is publicly held and managed. The 1982 survey showed a slight increase in industry ownership since 1972, amounting to about 252,000 acres.

Resource Characteristics: Ongoing Change

Fundamental changes in Alabama's forest resources are underscored by the measurable transition of forest types. In the last survey in 1972, the most common species type was loblolly-shortleaf. Although southern pine types still predominated in 1982 (when longleaf and slash are included), hardwoods increased significantly. Oak-hickory inventory now exceeds the loblolly-shortleaf category, having increased 23 percent since the previous inventory. Growing stock of the loblolly-shortleaf type decreased eight percent during the period. Also significant is the fact that although Alabama's total growing stock volume is up 13 percent, categories of softwood and hardwood cull are up 171 percent and 42 percent respectively.

Annual rates of mortality are higher than they were a decade ago. This is due to the advancing maturity of the timber base, to insects and diseases, to weather and to some unknown causes. Mortality for the 1972-1982 period accounted for a loss of 205 million ft^3 annually, up 98 percent since the 1963-1972 period. More than 75 percent of softwood mortality was attributable to insects, and roughly 50 percent for hardwood mortality to disease.

Management Opportunities

The Forest Service estimates the potential productivity of Alabama's timberland to be 99 ft^3 per acre. With net annual growth calculated at 46 ft^3/acre, Alabama's forests are producing at only 46 percent of their potential.

The current forest conditions in Alabama suggest that opportunities exist for improved management. The number of understocked acres has increased 56 percent since 1972. That coupled with the quadrupling of cull stands and increase in the proportion of hardwood, forewarns of changes in timber supply patterns for the industry.

With annual removals of softwood at 636.2 million ft^3 and growth at 641.8 million ft^3, there is a slight surplus of growth over removals. (Table V.) However, if existing trends continue, that favorable balance may shift. During the 1972-1982 period 1,300,000 acres of plantations were established in Alabama. Despite those efforts, though, the number of small softwood trees has declined dramatically as stands have matured and landowners have failed to regenerate after harvest. Better regeneration would increase productivity significantly.

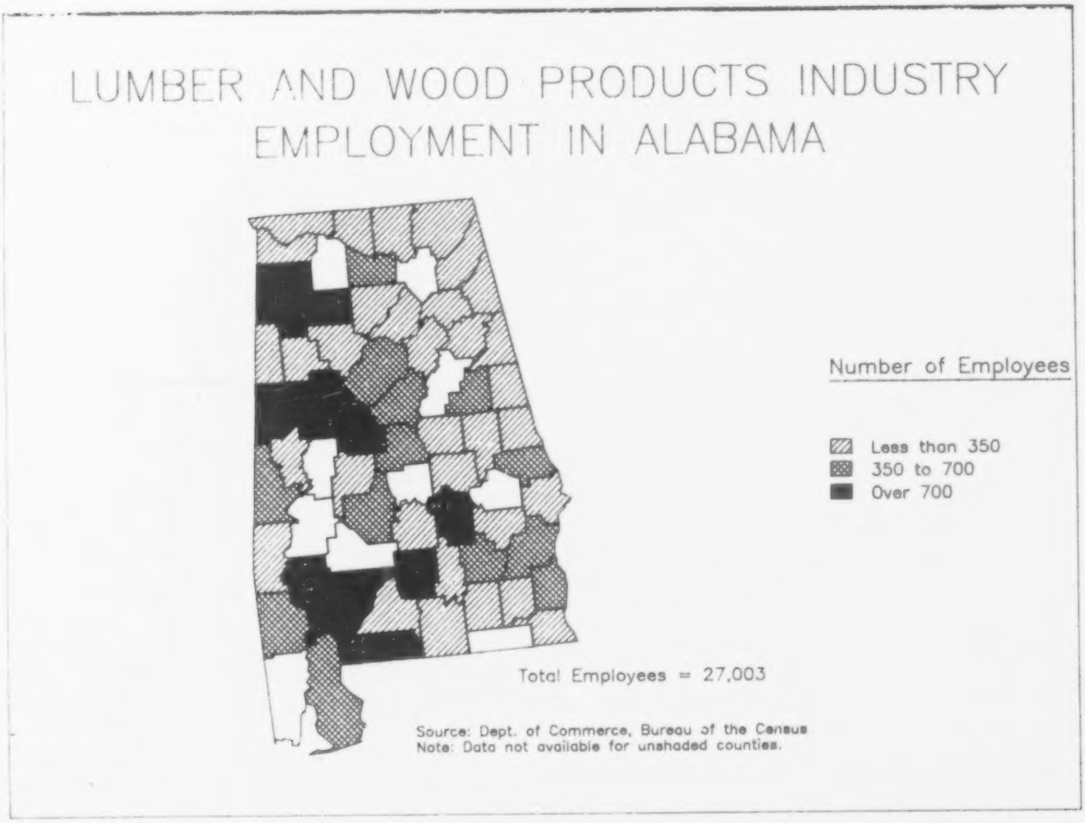
Table V: Removal and growth statistics for Alabama illustrate surplus growth. Softwood growth exceeds removals by only 5.6 million ft^3.

PERIODIC NET ANNUAL GROWTH AND REMOVALS
ALABAMA, 1972 - 1982

	Periodic Net Annual Growth			Periodic Annual Removals		
	All Species	Softwood	Hardwood	All Species	Softwood	Hardwood
	(Million Cubic Feet)					
National Forest	32.4	21.8	10.6	14.7	11.5	3.3
Other Public	15.2	8.6	6.6	8.7	6.0	2.7
Forest Industry	209.8	154.5	55.3	218.3	170.5	47.9
Farmer	268.2	152.5	115.7	211.5	143.1	68.4
Misc. Private	460.8	304.5	156.3	401.4	305.2	96.3
All Ownerships	986.3	641.8	344.5	854.8	636.2	218.6

Source: USDA Forest Service, Southern Forest Experiment Station Resource Bulletin SO-98: "Forest Resources of Alabama".

Figure 3: Employment statistics by county for the state of Alabama.


LUMBER AND WOOD PRODUCTS INDUSTRY EMPLOYMENT IN ALABAMA
Number of Employees
▨ Less than 350
▩ 350 to 700
■ Over 700
Total Employees = 27,003

Source: Dept. of Commerce, Bureau of the Census
Note: Data not available for unshaded counties.

ECONOMICS MONTHLY FORMAT TO CHANGE

The next issue of the NFPA Economics Monthly will look a little different. As part of a broad NFPA effort to expand and improve its coverage of industry news and trends, a new series of publications is being introduced. As a cousin to this "family" of publications, the Economics Monthly is being redesigned to match the other publications. We hope the new format will make it easier for you to find the information you need quickly and efficiently. Look for the "new look" next month. And let us know what you think.

A 7870-3

NFPA AN ECONOMICS BULLETIN OF THE FOREST PRODUCTS INDUSTRY

ECONOMICS MONTHLY

Volume II Number 7 July, 1986

MONTHLY STATISTICAL HIGHLIGHTS

Softwood lumber shipments through May were up 8.6 percent over last year; Canadian imports of softwood lumber were up 5.6 percent in the same period.

The Federal Reserve Board lowered its discount rate to 6.0 percent in July, the lowest it has been since January, 1978; most banks have lowered the prime rate to 8 percent.

Wood products exports are up dramatically -- softwood lumber, 29.3 percent; softwood plywood, 72.5 percent; hardwood lumber, 15.4 percent; hardwood veneer, 14.5 percent.

The Department of Commerce reports the value of new residential construction during the first five months of the year was up 8.3 percent.

NEW GLOBAL FOREST MODEL NEARS COMPLETION

The global scale of forest products trade has profound implications for domestic markets and ultimately for management of the forest resource--particularly as emerging producing countries challenge traditional ones for market share. And yet these implications are often difficult to anticipate.

One reason for this difficulty is the great number of variables that bear on the forest sector--from the price of exports and the fluctuations in exchange rates to the costs and rates of forest removals. Another factor that complicates strategic planning in the forest sector is the dearth of reliable data useful in the analysis of these variables.

IIASA To Release Global Forest Model This Fall

A group of forest economists and operations researchers with an organization called IIASA believe they have developed a computer model that represents a significant breakthrough in attempts to represent and analyze change in the global forest sector. The model will analyze separately 16 different wood and paper products in the context of 18 regions and subregions of the world over a 50-year time frame (Table I).

Technically, the GFM is described by IIASA analysts as the first global equilibrium market model developed for the forest sector. Rather than extrapolate scenarios from existing or historical trends--the distinctive feature of most computer models--the GFM reflects the dynamic interplay found in the real world by first determining the equilibrium point for supply and demand.

It then finds the most economically efficient solutions, through an optimization technique first used in the forest sector by Richard Haynes and Darius Adams for the North American forest sector. This technique attempts to mirror the actual movements of a market economy.

IIASA believes the GFM depicts producers, traders, and consumers of forest products as responsive to market incentives and economic self-interest. Price and cost relationships are derived from competitive interactions between these actors. The GFM determines the equilibrium level for each product and for the various trade flows that link the forested regions. All relevant price data are generated internally. Costs, except timber and fiber costs, are externally derived.

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PRODUCTS EXAMINED AND REGIONS AND
SUBREGIONS ANALYZED BY THE
IIASA GFM MODEL

Products

- Coniferous Logs
- Non-Coniferous Logs
- Coniferous Pulpwood
- Non-coniferous Pulpwood
- Fuelwood
- Coniferous Sawnwood
- Non-coniferous Sawnwood
- Veneer and Plywood
- Composition Panels
- Coniferous White Pulp
- Non-Coniferous White Pulp
- Newsprint
- Other Printing, Writing Papers
- Household, Sanitary Papers
- Packaging Papers, Boards
- Recycled Paper

Regions, Subregions

- Finland
- Sweden
- Western Europe
- USA-East; West
- Canada-East; West
- Japan
- Brazil
- Rest of Latin America
- USSR-European; Asian
- Rest of Eastern Europe
- Africa
- China
- ASEAN Countries
- Rest of Asia
- Australia & New Zealand

Source: IIASA

Table I: IIASA's Global Forest Model permits analysis of trade flows affecting 16 products and 18 regions.

Responsiveness and Sensitivity Tested

The Institute's Forest Sector staff has tested the model using seven scenarios: a base scenario continues current trends in per capita income, population growth, forest removals, etc.; an economic growth scenario models accelerated growth trends as an alternative to the base scenario; an exchange rate scenario depicts the impact on trade flows of a weak and a strong U.S. dollar; a tariff reduction scenario assumes that by 1987 the Tokyo Round reductions will be achieved and that by 2000 all forest products tariffs will be removed; a U.S.S.R. scenario measures the impact of greatly increased harvesting rates in the Siberian forests; an acid rain scenario; and finally a climatic warming scenario measures the influence of the so-called "greenhouse" effect on commercial forests.

These scenarios serve to test the responsiveness of the model and also offer insight into the ways that supply, demand, and trade flows may respond under varying conditions. For example, IIASA examined the impact on the Base Scenario of a weak and a strong dollar. The specific impacts on trade flows vary by product line and region.

In the Base Scenario, the GFM assumes that major currencies will recover two-thirds of their 1985 value against the U.S. dollar by 1990. In the weak dollar variation, the GFM models the impact of other currencies recovering all of their value against the dollar. The results, not surprisingly, showed that U.S. production and exports go up while consumption and imports decline. Under the strong dollar scenario, U.S. consumption goes up as expected to take advantage of cheaper imports, but production in Japan and Western Europe goes down. Lower production costs outside the United States push down price levels of forest products, thus stimulating U.S. demand, which pulls up prices again. These higher prices then dampen demand in Japan and Western Europe, hence illustrating the dynamic nature of the world market for forest products.

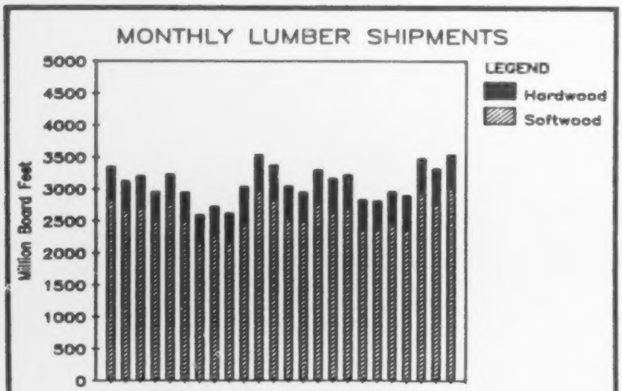
The Institute will soon publish a pamphlet and a technical book describing the GFM and related research findings. For further information about the publications and the model, write: the Secretariat, International Institute for Applied Systems Analysis, A-2361 Laxemburg, Austria. Telex: 07/9137.

ECONOMICS MONTHLY

Issued: July, 1986

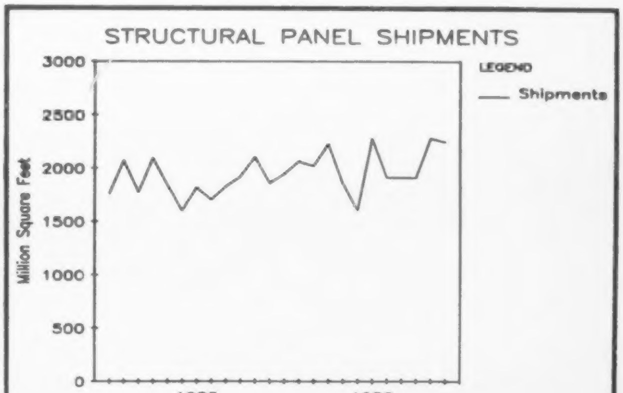
ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION

	MAY 1986			MAY 31, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER	(Million Board Feet)				
Southern Pine Region	949	949	910	570	1,892
Douglas Fir Region	780	838	741	497	891
Western Pine Region	839	890	856	464	1,289
California Redwood Region	173	199	173	115	378
Other Softwoods	140	147	137	242	298
TOTAL SOFTWOODS	2,881	3,023	2,817	1,888	4,748
% Change - April 1986	-2.2%	4.2%	3.7%	-9.8%	-2.9%
% Change - May 1985	5.9%	7.4%	-0.5%	-12.3%	3.6%
HARDWOOD LUMBER					
Southern Hardwood Region	254	250	257	274	869
Appalachian Hardwood Reg.	42	41	42	*	*
Other Hardwoods	228	224	230	208	1,080
TOTAL HARDWOODS	524	515	529	482	1,949
% Change - April 1986	-6.1%	-7.4%	0.4%	3.0%	0.5%
% Change - May 1985	-14.0%	-13.7%	-11.1%	15.9%	8.3%
TOTAL LUMBER	3,405	3,538	3,346	2,370	6,697
% Change - April 1986	-2.8%	2.3%	3.2%	-7.5%	-1.9%
% Change - May 1985	2.3%	3.7%	-2.3%	-7.7%	4.9%
* Included in Other Hardwoods					
FLOORING	(Thousand Feet)				
Oak Flooring (Bd. Ft.)	NA	12,454	NA	9,521	3,539
Maple Flooring (Sq. Ft.)	1,153	1,265	1,129	4,167	2,601
STRUCTURAL PANELS	2,236,402	2,245,946	2,066,932	493,549	617,000
% Change - April 1986	-5.7%	-1.5%	-2.5%	-20.8%	44.5%
% Change - May 1985	9.6%	6.8%	1.6%	6.3%	54.6%



MONTHLY LUMBER SHIPMENTS

Source: NFPA



STRUCTURAL PANEL SHIPMENTS

Source: American Plywood Association

YEAR-TO-DATE INDICATORS

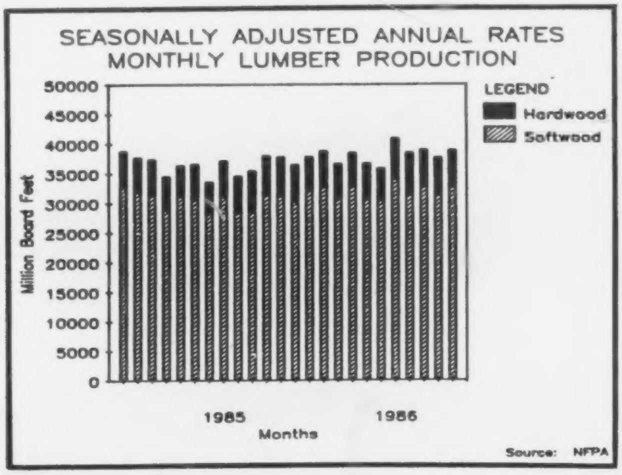
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	5 mos.'86	5 mos.'85	5 mos.'86	5 mos.'85	5 mos.'86	5 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	16,436	6.5%	16,371	6.2%	16,457	4.7%
TOTAL SOFTWOOD	13,747	8.9%	13,718	8.6%	13,712	6.3%
TOTAL HARDWOOD	2,689	-4.7%	2,653	-4.7%	2,745	-2.3%

SEASONALLY ADJUSTED ANNUAL RATES

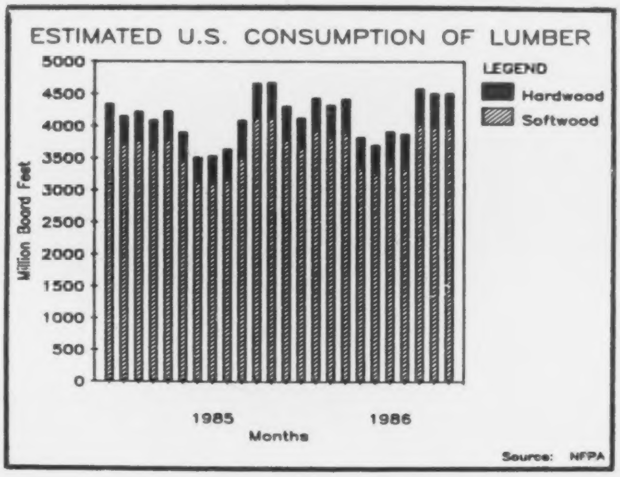
	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	May '86	Apr. '86	May '85	May '86	Apr. '86	May '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	10,378	-8.0%	-12.2%	9,993	-9.6%	-16.6%
Douglas Fir	9,113	13.4%	25.2%	9,227	16.7%	11.6%
Western Pine	9,658	0.3%	13.2%	10,210	2.7%	16.9%
Calif. Redwood	1,890	-11.3%	1.1%	2,241	2.5%	13.7%
Other Softwoods	1,588	-1.0%	5.2%	1,629	1.0%	2.6%
TOTAL SOFTWOODS	32,626	-0.2%	5.2%	33,300	1.8%	2.3%
TOTAL HARDWOODS	6,201	-5.0%	-14.0%	5,931	-6.4%	-15.4%
TOTAL LUMBER	38,827	-1.0%	1.6%	39,231	0.5%	-0.8%

DOMESTIC LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	May '86	Apr. '86	May '85	5 mos.'86	5 mos.'85
		(Million Board Feet)			
Total Consumption	4,502	-1.7%	-3.8%	16,877	5.5%
Softwood Consumption	3,981	-1.7%	-3.0%	14,801	7.2%
Hardwood Consumption	520	-2.3%	-9.6%	2,076	-5.0%



Source: NFPA



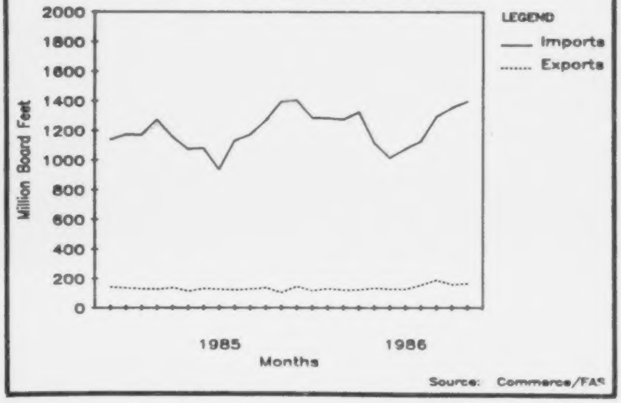
Source: NFPA

INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		May '86	5 mo. 1986	% Change From Apr. '86	% Change From 5 mo. 1985	May '86	5 mo. 1986	% Change From Apr. '86	% Change From 5 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	165.5	794.0	4.9%	29.3%	59,065	260,992	14.1%	73.1%
To Canada	MMBF	30.7	151.0	-7.9%	35.1%	7,645	37,212	-7.9%	64.7%
SOFTWOOD LOGS	MMBF	268.1	1,442.7	-12.0%	-7.8%	90,093	460,117	-11.3%	-23.0%
SOFTWOOD PLYWOOD	MMSF 3/8"	18.7	275.0	-61.9%	72.5%	4,420	58,833	-56.7%	73.7%
HARDWOOD LUMBER	MMBF	39.1	191.9	-4.4%	15.4%	27,650	133,264	-1.2%	47.0%
HARDWOOD LOGS	MMBF	10.4	59.1	-9.5%	1.3%	11,437	54,975	-5.2%	12.6%
HARDWOOD VENEER	MMSFsurf	85.8	373.8	17.5%	14.5%	7,605	31,477	20.1%	59.5%
PARTICLEBOARD	MMSF 3/4"	12.2	65.3	-6.1%	60.2%	2,466	12,746	-13.3%	54.7%
ALL OTHER		NA	NA	NA	NA	47,492	211,019	12.9%	21.2%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	251,119	1,228,000	-1.7%	9.6%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,396.1	6,248.1	3.1%	5.8%	305,739	1,276,841	6.5%	14.5%
From Canada	MMBF	1,391.8	6,198.6	3.3%	5.6%	304,282	1,266,552	6.9%	14.6%
SOFTWOOD LOGS	MMBF	3.6	15.1	-31.3%	-44.3%	424	1,539	25.4%	-80.3%
SOFTWOOD PLYWOOD	MMSF 3/8"	15.8	55.9	42.1%	63.9%	3,956	14,891	47.0%	202.7%
HARDWOOD LUMBER	MMBF	37.3	156.8	56.3%	-5.2%	17,168	71,803	33.9%	6.7%
HARDWOOD LOGS	MMBF	2.5	8.1	78.0%	7.7%	344	1,505	20.3%	22.9%
HARDWOOD VENEER	MMSFsurf	134.7	677.2	9.7%	24.4%	10,429	47,239	23.3%	7.2%
HARDWOOD PLYWOOD	MMSF 3/8"	302.5	1,684.9	8.9%	14.5%	37,909	206,988	15.9%	19.3%
HARDBOARD	MMSFsurf	69.8	377.8	4.5%	34.4%	4,627	24,223	11.7%	10.0%
PARTICLEBOARD	MSF 3/4"	49.9	222.3	12.9%	-0.2%	13,196	57,233	13.7%	15.7%
ALL OTHER		NA	NA	NA	NA	109,109	452,216	13.1%	27.4%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	503,610	2,155,890	10.2%	17.0%

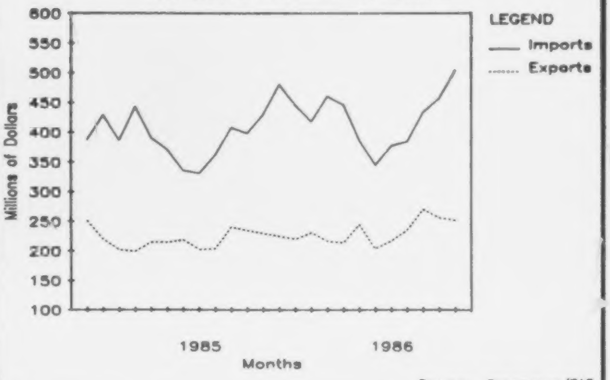
Note: Volume total is not possible because the products are in different units of measure.
Note: Particleboard imports include OSB/Waferboard.

VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS



Source: Commerce/FAS

VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS



Source: Commerce/FAS

VALUE OF NEW CONSTRUCTION

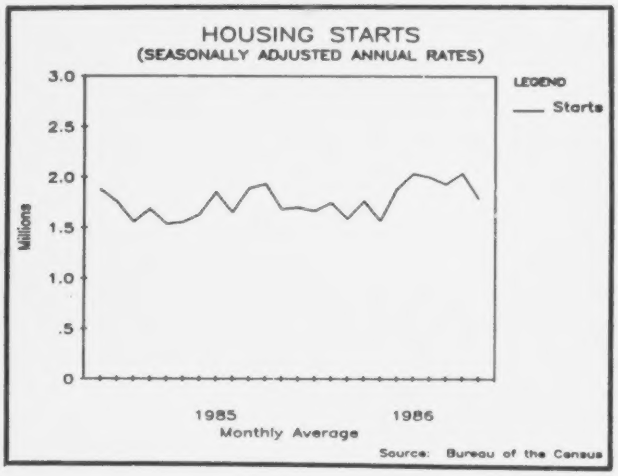
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	May '86	Apr '85	May '85	5 mo. '86	5 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	32.0	15.1%	10.6%	133.7	6.5%
Private	25.8	13.2%	9.1%	110.0	4.5%
Residential	14.8	17.5%	20.0%	59.1	8.3%
Nonresidential & Other	7.8	13.0%	-31.1%	35.0	-30.9%
Public	6.2	24.0%	17.6%	23.7	16.7%

HOUSING STARTS

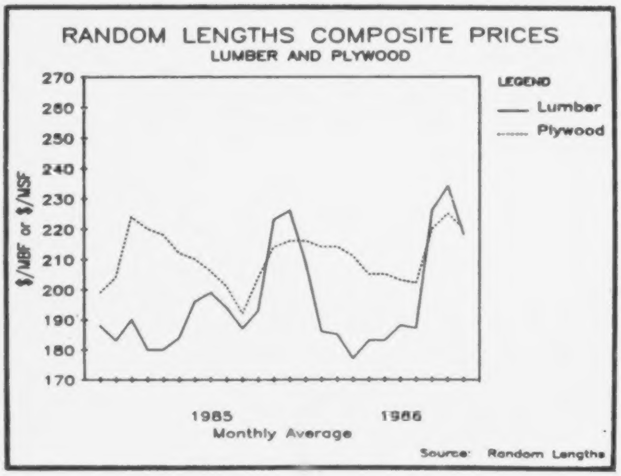
	May '86	Apr '85	May '85	5 mo. '86	5 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	187.0	-0.6%	9.7%	749.1	8.1%
New Private Starts	187.0	-0.6%	9.9%	749.0	8.3%
Seas. Adj. Annual Rate	1788	-12.3%	6.4%		
One-Family Housing Starts	126.4	5.1%	17.6%	480.8	11.4%
Proportion of Total	67.6%			64.2%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	22,500	-1.7%	-19.6%	103,500	-11.2%

INDUSTRY EMPLOYMENT

	May '86	----% Change From---	
		Apr '85	May '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,908	0.1%	2.6%
All Manufacturing Industries	19,200	-0.2%	-1.2%
Lumber and Wood Products	719	0.0%	3.2%
Furniture and Fixtures	496	0.4%	0.6%


HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census


RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Lengths

REPORT IDENTIFIES FOREIGN-OWNED FOREST LAND

Foreign owners accounted for less than one percent of all private agricultural land in the United States, but the major portion of these holdings was in forest land. This was the conclusion of a report issued earlier this year by the Department of Agriculture (USDA), pursuant to provisions of the Agricultural Foreign Investment Disclosure Act of 1978 (AFIDA). The Act requires all foreign persons acquiring or disposing of agricultural land to report such transactions to the Secretary of Agriculture within 90 days of the transaction. A report is issued yearly to the President and the Congress detailing the extent of foreign ownership of U.S. agricultural (and forest) land.

Information analyzed revealed that as of December 31, 1985, foreign owners held an interest in 12,094,292 acres of U.S. agriculture and forest land. Forest land accounted for 51 percent of all foreign-owned acreage, cropland for 17 percent, pasture and other agricultural land for 27 percent, and nonagricultural and unreported uses for 5 percent. Foreign ownerships were found in 49 states and two U.S. territories, with a significant concentration in the Western and Southern regions.

Maine Leads In Foreign Participation

Rhode Island was the only state that had no foreign-held agricultural land identified. On the other hand, its New England neighbor Maine had the largest foreign ownership, accounting for 10.1 percent of the state's private agricultural and forest land. Apparently, three companies with foreign participation owned most of the Maine land identified by USDA. Foreign interests held 1,017,382 acres in Texas, although this represented only 0.7 percent of all agricultural land in the longhorn state. Pennsylvania had the second highest percentage of lands (3.5 percent) in foreign holdings.

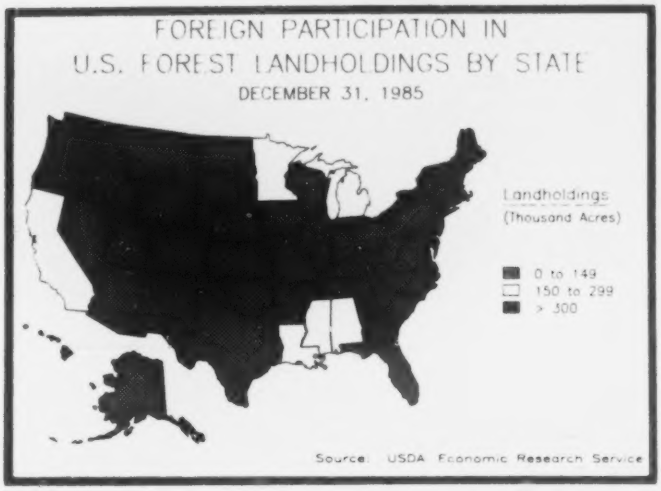
According to the report, 696 foreign owners controlled 2,048 parcels of U.S. timberland, averaging 2,800 acres. Of the number of parcels, 108 were jointly-owned between U.S. and foreign interests. Individuals accounted for 19 percent of the parcels, only 2 percent of the acres; corporations accounted for 53 percent of the parcels, 91 percent of the acreage. Partnerships, trusts, estates and other organizational entities controlled 28 percent of the parcels, eight percent of the forested acreage. Parcels of timberland

Table II: Filings under the Agricultural Foreign Investment Disclosure Act (AFIDA) offer a clue to forest land values in selected states.

U.S. FOREST AND OTHER NONAGRICULTURAL LAND
ACQUISITIONS OF FOREIGN OWNERS BY STATE
January 1, 1985 - December 31, 1985

State	Parcels Reported (Number)	Acres (Number)	Est. Value ($000)
Alabama	3	254	$218
Georgia	18	7,875	$6,880
Idaho	2	3,724	$3,731
Louisiana	10	286,220	$12,279
Maine	2	60,482	$1,246
Mississippi	18	179,759	$2,153
New Hampshire	2	864	$292
New York	5	5,948	$117
North Carolina	1	83	$15
Oregon	22	535,805	$2,055
Pennsylvania	1	20	$25
South Carolina	4	646	$559
Tennessee	2	339	$224
Texas	1	251	$1,450
Vermont	5	2,856	$886
Virginia	1	204	$143
Washington	12	320,365	$784
West Virginia	6	57,682	$27,528
TOTAL	115	1,463,377	$60,585

Source: USDA, Economic Research Service



Source: USDA Economic Research Service

Figure 1: Foreign investment in U.S. forest land is relatively small, but significant in a few states.

owned by foreigners tended to be very large. Only a minuscule number of acres (0.6 percent) were in parcels of fewer than 300 acres.

Brits Still Holding on to Their Colonies

Joint ownerships between U.S. and British individuals or entities accounted for the largest block of the timberland, approximately 2.9 million acres. Canadian companies wholly owned slightly more than one million acres, with U.S./Canadian joint ventures owning an additional half-million acres. West Germany lays claim to 236,644 acres of forest land. Entirely foreign-controlled companies from the United Kingdom, Canada and West Germany combined owned some 24 percent of the total land identified (Figure 1).

List of Foreign Ownerships Grew During 1985

The most significant transactions reported during 1985 concerned the acquisition of some 1.7 million acres. By definition under AFIDA, acquisitions include land belonging to a company which changes in whole or in part to a foreign ownership. Of the 1,673,910 acres of agricultural and forest land reported as acquired during 1985, 79 percent was in four states: Oregon, Washington, Louisiana, and Mississippi. These "acquisitions" can be attributed, in all likelihood, to the takeover of Crown Zellerbach Corporation by a British national.

The AFIDA filing also requires information on the value of forest land acquired or transferred. Hence, the USDA report provides some insight into current values of timberland in selected states. Table II details the reported acquisitions during 1985. It should be noted that forest land values vary tremendously, and are a function of many factors including location, site characteristics and stocking.

Balancing the acreage acquired by foreign interests in 1985 were some 215,076 acres which were disposed of or changed hands back to U.S. owners.

Copies of USDA Report Are Available From NFPA

A limited number of copies of the USDA report, "Foreign Ownership of U.S. Agricultural Land Through December 31, 1985", are available from NFPA. Please mail a request with $2.75 to cover printing, postage and handling to Julia Stewart, Manager Statistical Publications, NFPA, 1250 Connecticut Ave. NW, Washington DC 20036.

A 7870-3

NFPA

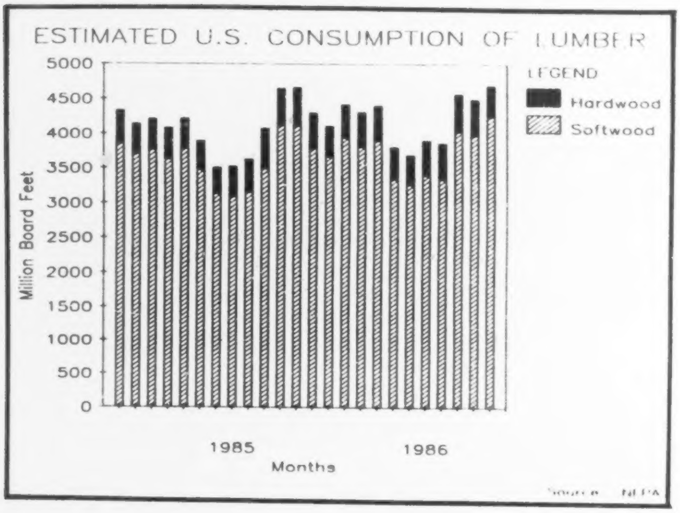
ERRATA TO JULY ISSUE OF NFPA ECONOMICS MONTHLY

Please replace the "Domestic Lumber Consumption" table on page 2 of the statistical insert with the following corrected table.

We apologize for any inconvenience this may have caused.

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	May '86	Apr. '86	May '85	5 mos.'86	5 mos.'85
	(Million Board Feet)				
Total Consumption	4,696	1.7%	-0.2%	21,691	4.8%
Softwood Consumption	4,254	3.8%	3.6%	19,172	7.0%
Hardwood Consumption	443	-14.9%	-26.2%	2,519	-9.6%


ESTIMATED U.S. CONSUMPTION OF LUMBER

Source: NFPA

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NFPA
AN ECONOMICS BULLETIN OF THE FOREST PRODUCTS INDUSTRY

ECONOMICS MONTHLY

Volume II Number 8
August 1986

MONTHLY STATISTICAL HIGHLIGHTS

The Federal Reserve lowered the discount rate to 5.5 percent in August, the lowest it has been since 1977.

The value of U.S. exports of all wood products was up 7.9 percent during the first half of 1986. Leading the export performers was softwood plywood, up 61.6 percent in value.

U.S. consumption of softwood lumber during the first half of 1986 set a new record, outpacing last year's level by 7.8 percent.

Employment in the lumber and wood products industry during June was 3.7 percent higher than June, 1985.

HOUSE-SENATE CONFERENCE WRAPS UP TAX REFORM

The most significant economic news out of Washington this month is the near completion of work on tax overhaul. House and Senate conferees reached final agreement on major changes to the tax code just before adjourning for the August recess. The tax bill, if enacted into law as expected, will have far-reaching implications for all sectors of the economy, including the forest-based industries.

The forest industry lobbied hard to retain certain provisions of the existing code, including capital gains treatment of timber for all landowners (individual and corporate), expensing of forest management costs, as well as the preservation of adequate capital formation incentives for investment in plant and equipment. It also sought to change the proposed method for calculating income under the corporate minimum tax provisions.

Repealing the investment tax credit was an early target for raising revenues from the corporate sector. It will be eliminated, except for certain business energy tax credits, and a reforestation tax credit for the first $10,000 invested each year. The final compromise between the House and Senate conferees eliminated the differential treatment of capital gains, although the concept of capital gains remains in the code. Attempts by numerous industries to modify the minimum tax proposal were largely unsuccessful. The forest industry succeeded in retaining current law provisions which allow expensing of forest management.

What will the new tax code mean for the forest industry? First, it will alter the net asset value of timber and timberland to reflect before-tax profit potential. It will also alter the economics of on-going forest management, as some investments will no longer show a positive after-tax return. This could lead to changes in timber ownership if some owners decide long-term prospects for profit from timber investments are nonexistent or sufficiently uncertain.

Second, the types of capital improvements in plant and equipment may change. Elimination of the investment tax credit and longer depreciation means that the pay-back on capital investments has to be greater than under current law in order to be economically justifiable. Companies will have to weigh capital investments carefully and may opt to forego some investments altogether.

Finally, the new code will undoubtedly lead to dramatic changes in accounting and valuation methods. The full impact will not be known for some time, but they are likely to affect the accounting procedures on internal transactions of integrated companies, as well as the bookkeeping requirements of all companies.

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ECONOMY WATCH

Also out of Washington this month comes news of further declines in interest rates. With growth in the GNP during the second quarter at a low 0.6 percent, and citing the burgeoning trade deficit, the Federal Reserve lowered its discount rate to 5.5 percent. This bodes well for housing despite some declines in starts during the past two months. During the first six months of the year, new housing averaged an annual rate of approximately 1.95 million units. Single-family starts were up 15 percent over 1985. Mortgage interest rates have declined below 10 percent in many parts of the country for the first time this decade. But few forecasters are willing to be outwardly optimistic about the economy in general over the next several months without evidence that the budget deficit and trade imbalance can be reduced.

MARKET FOCUS -- PARTICLEBOARD AND MDF

One segment of the wood products industry which has benefited from the increase in housing starts, and the boom in remodeling and furnishing, is the particleboard and medium density fiberboard (MDF) industry. This month, we take a closer look at these pressed wood products.

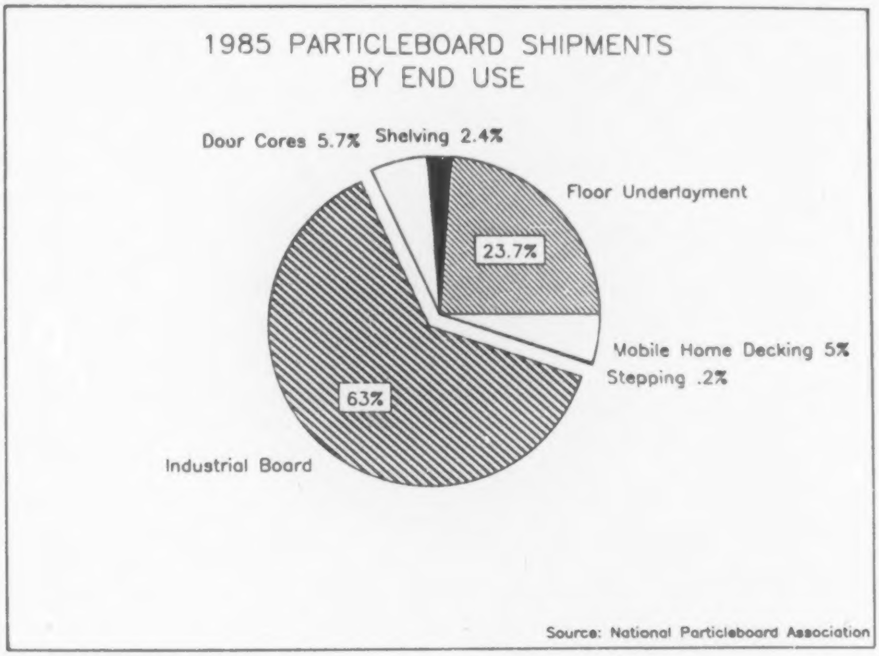
Some Background

Particleboard and MDF are manufactured from wood residues in a process that uses synthetic adhesives as a bonding agent under heat and pressure. Planer shavings, sawdust and other "waste" from wood products manufacture provide the basic material. Particleboard and MDF plants use on average 1.5 tons of wood raw material for each 1,000 square feet of finished board. Because residue materials are used, the result is not only lower cost engineered wood products, but also more complete utilization of forest resources.

Over 90 percent of the U.S. particleboard industry and virtually all the MDF industry uses a mat-formed manufacturing process. In this process, resin-coated wood particles are formed into mats which are moved horizontally into a heated press consisting of one or more heavy metal compression plates. The specific size and species of wood particles, the amount and composition of the adhesives, the heat and pressure applied, and the thickness of the panel are largely determined by the end-use of the product.

Particleboard is used as underlayment for floor systems in conventional housing, floor decking in manufactured homes, and as components for furniture, fixtures and cabinets. Particleboard used in decking must have increased strength and dimensional properties, while particleboard used in the furniture industry typically is more finely textured and smoother surfaced. This category of particleboard usage accounts for 63 percent of total consumption (Figure 1).

Medium density fiberboard differs from particleboard in the geometry of the wood particle utilized. To manufacture MDF, wood particles are "cooked" under pressurized steam and then mechanically separated into individual wood fibers. MDF has a more homogeneous texture and color and an edge that can be machined and shaped. These qualities make MDF a popular product with furniture manufacturers. The lion's share of MDF, 95 percent, is consumed in the furniture, fixtures, and cabinet industries, the balance



Source: National Particleboard Association

Figure 1: Almost two thirds of particleboard shipped is industrial board, used primarily in furniture and cabinet manufacture.

used in doors and other miscellaneous applications.

Industry Structure

From a production level of less than 300 million square feet in 1960, particleboard shipments peaked at 3.7 billion square feet in 1978 and have averaged 3.1 billion square feet per year since then. Table I details production and price trends of particleboard and MDF since 1960. Value of product shipments in 1985 were estimated to be $676 million for particleboard and $243 million for MDF.

The National Particleboard Association reports that there are 46 particleboard plants in 18 states operated by 29 companies, and 15 MDF plants operated in 12 states operated by 11 companies. In 1985, six companies operated both particleboard and MDF plants. The industry is concentrated; the top five producers account for approximately half of total U.S. production. Average plant capacity is currently estimated to be 83 million square feet for particleboard, 65 million square feet for MDF. The particleboard industry capacity has been steady since the mid 1970s, but another 135 million square feet of capacity will start up in the next year. (Figure 2.)

In contrast, MDF production has been increasing steadily with four plant start-ups since 1983, and three more coming on in the next year. (Figure 3.) Average annual output of MDF has increased more than three times since 1975. New plants and expansions planned through 1987 will increase total U.S. MDF capacity by 25 percent over 1985 levels.

Shipments as a percentage of annual capacity for both products have ranged between 60 and 90 percent since 1966 with the majority of those years averaging between 70 and 82 percent. Capacity utilization during

SHIPMENTS/PRODUCTION, VALUE OF SHIPMENTS, AND AVERAGE MILL PRICE
PARTICLEBOARD AND MDF

	Production/Shipments (Thous. Square Feet, 3/4")					Value of Shipments ($ Million)		Average Price FOB Mill ($/MSF)	
	Particleboard				MDF				
	TOTAL Particle-Board	Underlay-ment	Industrial	Mobile Home Decking		Particle-Board	MDF	Particle-Board	MDF
1970	1,731,451	596,427				159.4		96	
1971	2,359,221	753,411				206.3		90	
1972	3,079,123	941,353				284.9		94	
1973	3,460,450	890,935	2,107,532	461,983		389.4		114	
1974	3,074,535	901,353	1,859,624	313,558		347.4		116	
1975	2,502,580	784,007	1,492,032	226,541	215,496	272.6	31.4	108	177
1976	3,188,911	1,092,321	1,535,713	276,998	280,036	364.9	54.4	115	195
1977	3,569,451	1,096,564	1,825,460	289,154	441,354	484.9	84.9	136	205
1978	3,720,369	1,148,858	1,829,745	274,139	508,416	818.4	114.9	220	226
1979	3,376,488	1,103,995	1,674,906	264,649	506,728	574.8	136.7	170	270
1980	2,949,897	885,759	1,501,746	223,430	493,140	531.1	145.2	180	294
1981	2,869,352	780,487	1,531,309	218,476	516,102	536.6	175.4	187	340
1982	2,393,066	653,728	1,306,651	176,997	446,157	469.2	144.8	196	324
1983	3,009,343	797,697	1,730,329	190,157	604,323	607.0	198.0	202	328
1984	3,195,586	729,679	1,943,442	157,553	634,974	697.4	216.5	218	341
1985	3,330,517	756,772	2,015,544	159,213	684,593	675.9	242.5	203	354
1986 (E)									

Note: 1970 - 1977 data represent production figures; shipments figures are reported after 1978.

Source: National Particleboard Association

Table I: Particleboard shipments have stabilized at around 3.2 billion square feet; MDF shipments are on the rise.

the first six months of 1986 was reported by NPA to be over 90 percent.

The combined particleboard/MDF industry employed about 6,200 in 1982. Total wages were $112.7 million. Wage rates appear to be higher in the particleboard industry than in other wood products sectors. Average employee earnings in 1982 were $18,177, compared to $15,316 earned by sawmill and planing mill employees.

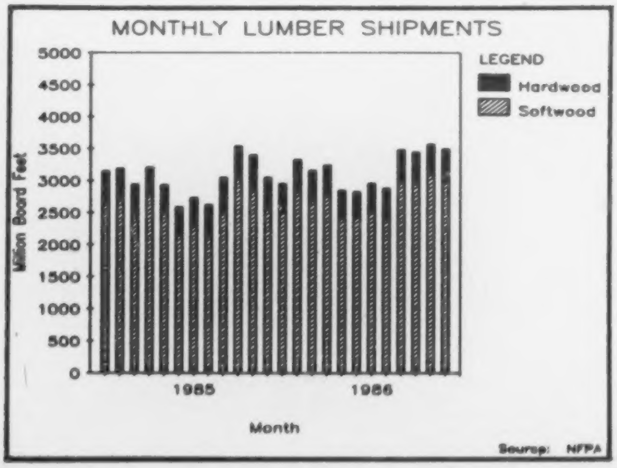
Most of the currently operating particleboard mills are over 15 years old. The average age of the MDF mills is less than 10 years old.

ECONOMICS MONTHLY

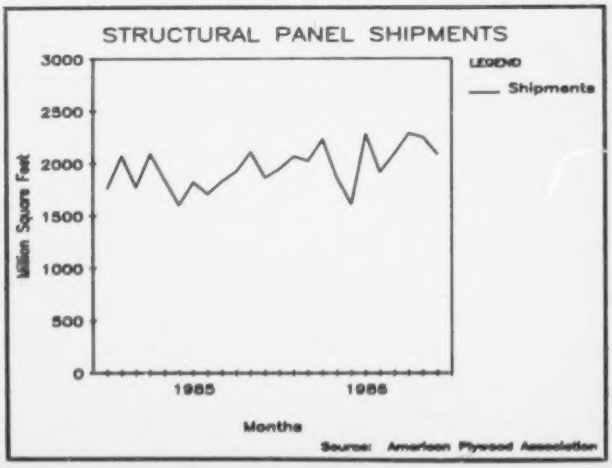
Issued: August 1986

ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION

	JUNE 1986			JUNE 30, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	955	982	1031	620	1,866
Douglas Fir Region	684	746	702	452	813
Western Pine Region	891	943	935	457	1,260
California Redwood Region	162	170	173	118	376
Other Softwoods	138	145	145	238	290
TOTAL SOFTWOODS	2,830	2,986	2,986	1,885	4,605
% Change - May 1986	-4.2%	-3.6%	3.5%	0.0%	-3.3%
% Change - June 1985	8.6%	16.5%	26.4%	-3.5%	-0.6%
HARDWOOD LUMBER					
Southern Hardwood Region	228	223	222	273	874
Appalachian Hardwood Reg.	90	87	82	*	*
Other Hardwoods	207	202	198	198	882
TOTAL HARDWOODS	525	512	502	471	1,756
% Change - May 1986	8.9%	8.2%	3.1%	-2.1%	0.7%
% Change - June 1985	1.0%	4.1%	9.6%	23.0%	8.1%
TOTAL LUMBER	3,355	3,498	3,488	2,356	6,361
% Change - May 1986	-2.4%	-2.0%	3.4%	-0.4%	-2.2%
% Change - June 1985	7.3%	14.5%	23.7%	0.9%	2.9%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	11,810	NA	8,772	4,697
Maple Flooring (Sq. Ft.)	1,073	1,236	1,626	4,296	2,438
STRUCTURAL PANELS	2,027,957	2,082,907	2,221,414	828,244	426,000
% Change - May 1986	-9.3%	-7.3%	7.5%	91.5%	4.2%
% Change - June 1985	8.6%	12.0%	15.7%	57.0%	28.6%


MONTHLY LUMBER SHIPMENTS

Source: NFPA


STRUCTURAL PANEL SHIPMENTS

Source: American Plywood Association

YEAR-TO-DATE INDICATORS

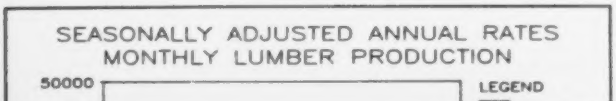
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	6 mos.'86	6 mos.'85	6 mos.'86	6 mos.'85	6 mos.'86	6 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	19,770	6.7%	19,847	7.8%	19,919	7.8%
TOTAL SOFTWOOD	16,852	9.1%	16,977	10.2%	16,971	9.6%
TOTAL HARDWOOD	2,918	-5.1%	2,870	-4.6%	2,948	-1.7%
	(Million Square Feet)					
STRUCTURAL PANELS	12,950	14.1%	12,890	14.7%	12,789	12.9%

SEASONALLY ADJUSTED ANNUAL RATES

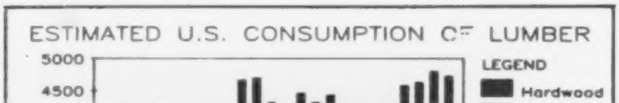
	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	June '86	May '86	June '85	June '86	May '86	June '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	11,099	5.2%	6.3%	11,059	8.8%	19.2%
Douglas Fir	8,277	-14.1%	6.9%	8,622	-11.7%	22.1%
Western Pine	10,859	11.2%	17.6%	10,849	5.3%	18.9%
Calif. Redwood	1,881	0.1%	12.4%	1,788	-19.4%	-3.8%
Other Softwoods	1,629	-0.3%	8.6%	1,676	0.2%	18.5%
TOTAL SOFTWOODS	33,745	0.8%	10.3%	33,994	-0.4%	18.3%
TOTAL HARDWOODS	6,040	5.9%	0.1%	5,939	9.0%	-3.4%
TOTAL LUMBER	39,786	1.6%	8.7%	39,933	0.9%	14.5%

DOMESTIC LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	June '86	May '86	June '85	6 mos.'86	6 mos.'85
	(Million Board Feet)				
Total Consumption	4,727	-1.6%	9.5%	26,498	6.1%
Softwood Consumption	4,230	-2.3%	10.7%	23,675	7.8%
Hardwood Consumption	497	4.9%	0.4%	2,823	-6.3%


SEASONALLY ADJUSTED ANNUAL RATES
MONTHLY LUMBER PRODUCTION

Source: NFPA


ESTIMATED U.S. CONSUMPTION OF LUMBER

Source: NFPA

09/02/86

TABLE 1

ESTIMATED TOTAL REGIONAL LUMBER PRODUCTION, SHIPMENTS, AND NEW ORDERS

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	APPALACHIAN HARDWOOD	OTHER HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
PRODUCTION											
1976	7,893	8,322	9,789	2,001	1,688	29,693	3,037	1,173	2,217	6,427	36,120
1977	8,879	8,796	10,309	2,000	1,753	31,737	3,073	1,211	2,417	6,701	38,438
1978	9,231	8,845	10,033	1,902	2,046	32,057	3,258	1,233	2,540	7,031	39,088
1979	9,283	8,427	9,780	1,818	2,124	31,432	3,462	1,263	2,589	7,314	38,746
1980	8,217	6,815	7,613	1,589	2,012	26,246	3,341	1,221	2,553	7,115	33,361
1981	8,415	6,270	7,147	1,452	1,392	24,676	3,374	1,237	1,641	6,252	30,928
1982	8,754	5,743	6,681	1,300	1,309	23,787	2,061	602	2,398	5,062	28,849
1983	10,181	7,934	8,488	1,580	1,543	29,726	2,245	785	2,614	5,644	35,370
1984*											
1ST QUARTER	2,620	2,337	2,252	435	391	8,035	645	267	611	1,523	9,558
2ND QUARTER	2,787	2,264	2,429	444	404	8,328	651	297	636	1,584	9,912
3RD QUARTER	2,692	1,985	2,213	407	373	7,670	697	241	630	1,568	9,238
4TH QUARTER	2,575	1,743	2,098	378	347	7,141	649	180	555	1,384	8,525
TOTAL YEAR	10,674	8,329	8,992	1,664	1,515	31,174	2,642	985	2,432	6,059	37,233
1985*											
1ST QUARTER	2,485	1,970	2,009	448	353	7,265	635	248	576	1,459	8,724
2ND QUARTER	2,914	2,016	2,405	451	398	8,184	700	279	637	1,616	9,800
3RD QUARTER	2,735	2,039	2,539	445	396	8,154	657	218	569	1,444	9,598
4TH QUARTER	2,528	2,037	2,323	386	372	7,646	635	159	518	1,312	8,958
TOTAL YEAR	10,662	8,062	9,276	1,730	1,519	31,249	2,628	904	2,300	5,831	37,080
1986*											
1ST QUARTER	2,710	2,196	2,329	443	392	8,070	715	141	558	1,414	9,484
2ND QUARTER	2,913	2,291	2,640	510	428	8,782	691	220	593	1,504	10,286
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	5,623	4,487	4,969	953	820	16,852	1,406	361	1,151	2,918	19,770
SHIPMENTS											
1976	7,782	8,293	9,744	2,044	1,679	29,542	3,032	1,171	2,214	6,417	35,959
1977	8,932	8,781	10,295	2,075	1,759	31,842	3,114	1,225	2,450	6,789	38,631
1978	9,226	8,906	10,067	1,884	2,051	32,134	3,248	1,230	2,530	7,008	39,142
1979	9,255	8,412	9,696	1,760	2,111	31,234	3,326	1,216	2,487	7,029	38,263
1980	8,018	6,821	7,807	1,590	2,012	26,248	3,119	1,142	2,387	6,648	32,896
1981	8,388	6,270	7,183	1,501	1,395	24,737	3,313	1,182	1,602	6,097	30,834
1982	8,464	5,793	6,775	1,349	1,303	23,684	2,127	634	2,488	5,249	28,933
1983	10,214	7,802	8,264	1,582	1,528	29,390	2,312	829	2,708	5,849	35,239
1984*											
1ST QUARTER	2,527	2,196	2,126	421	372	7,642	643	265	609	1,517	9,159
2ND QUARTER	2,780	2,263	2,395	440	402	8,280	639	289	622	1,550	9,830
3RD QUARTER	2,718	2,038	2,284	415	381	7,836	654	219	585	1,458	9,294
4TH QUARTER	2,549	1,912	2,209	397	361	7,428	619	167	526	1,312	8,740
TOTAL YEAR	10,574	8,409	9,014	1,673	1,516	31,186	2,555	940	2,342	5,837	37,023
1985*											
1ST QUARTER	2,418	1,914	1,914	381	338	6,965	633	245	573	1,451	8,416
2ND QUARTER	2,972	2,131	2,441	492	411	8,447	677	266	613	1,556	10,003
3RD QUARTER	2,705	2,003	2,546	433	393	8,080	628	201	541	1,370	9,450
4TH QUARTER	2,512	2,029	2,320	389	371	7,621	631	157	514	1,302	8,923
TOTAL YEAR	10,607	8,077	9,221	1,695	1,513	31,113	2,569	869	2,241	5,679	36,792
1986*											
1ST QUARTER	2,720	2,174	2,282	377	386	7,939	704	138	548	1,390	9,329
2ND QUARTER	2,900	2,399	2,739	560	440	9,038	681	215	584	1,480	10,518
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	5,620	4,573	5,021	937	826	16,977	1,385	353	1,132	2,870	19,84
NEW ORDERS											
1976	7,779	8,377	9,760	2,067	1,687	29,670	3,015	1,165	2,200	6,380	36,050
1977	8,970	8,712	10,331	2,119	1,762	31,894	3,163	1,244	2,488	6,895	38,789
1978	9,273	8,894	9,946	1,847	2,043	32,003	3,288	1,239	2,560	7,087	39,090
1979	9,273	8,388	9,630	1,664	2,098	31,053	3,250	1,184	2,429	6,863	37,916
1980	7,964	6,791	7,730	1,563	1,996	26,044	3,060	1,118	2,338	6,516	32,560
1981	8,433	6,200	7,076	1,501	1,387	24,597	3,341	1,198	1,617	6,156	30,753
1982	8,510	5,976	6,880	1,388	1,325	24,079	2,123	650	2,495	5,268	29,347
1983	10,417	7,864	8,350	1,573	1,544	29,748	2,344	834	2,741	5,919	35,667
1984*											
1ST QUARTER	2,426	2,346	2,173	401	375	7,721	679	277	640	1,596	9,317
2ND QUARTER	2,752	2,072	2,311	397	385	7,917	585	285	584	1,454	9,371
3RD QUARTER	2,694	2,055	2,325	426	383	7,883	631	212	566	1,409	9,292
4TH QUARTER	2,470	1,823	2,202	416	353	7,264	629	170	536	1,335	8,599
TOTAL YEAR	10,342	8,296	9,011	1,640	1,496	30,785	2,524	944	2,326	5,794	36,579
1985*											
1ST QUARTER	2,372	1,935	1,920	391	338	6,956	659	246	589	1,494	8,450
2ND QUARTER	2,982	2,105	2,528	502	415	8,532	653	258	593	1,504	10,036
3RD QUARTER	2,797	2,012	2,506	394	394	8,103	638	207	550	1,395	9,498
4TH QUARTER	2,490	1,992	2,293	395	366	7,536	624	156	507	1,287	8,823
TOTAL YEAR	10,641	8,044	9,247	1,682	1,513	31,127	2,574	867	2,239	5,680	36,807
1986*											
1ST QUARTER	2,805	2,291	2,403	431	405	8,335	757	146	587	1,490	9,825
2ND QUARTER	2,840	2,206	2,642	529	419	8,636	674	209	575	1,458	10,094
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	5,645	4,497	5,045	960	824	16,971	1,431	355	1,162	2,948	19,919

* SUBJECT TO REVISION.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING

09/02/86

TABLE 2

ESTIMATED REGIONAL SOURCES OF DOMESTIC CONSUMPTION OF LUMBER (NET IMPORTS ALLOCATED)

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
1976	7,641	12,069	10,820	1,981	3,575	36,086	3,054	3,387	6,441	42,527
1977	8,774	14,081	11,626	2,026	4,302	40,809	3,158	3,732	6,890	47,699
1978	9,096	15,133	11,559	1,849	5,003	42,640	3,242	3,755	6,997	49,637
1979	9,060	14,248	10,553	1,729	5,018	40,608	3,342	3,597	6,939	47,547
1980	7,757	11,461	8,509	1,563	4,542	33,832	3,028	3,244	6,272	40,104
1981	8,177	10,828	7,760	1,463	3,836	32,064	3,202	2,653	5,855	37,919
1982	8,232	10,381	7,316	1,327	3,917	31,173	2,031	3,066	5,098	36,270
1983	10,233	14,108	8,848	1,558	4,995	39,742	2,121	3,276	5,397	45,138
1984*										
1ST QUARTER	2,488	3,854	2,284	416	1,308	10,350	621	837	1,458	11,808
2ND QUARTER	2,727	3,965	2,564	425	1,405	11,085	610	895	1,505	12,590
3RD QUARTER	2,682	4,070	2,430	410	1,466	11,058	628	775	1,403	12,461
4TH QUARTER	2,505	3,782	2,329	393	1,355	10,363	600	673	1,272	11,636
TOTAL YEAR	10,402	15,672	9,606	1,643	5,534	42,857	2,459	3,179	5,638	48,495
1985*										
1ST QUARTER	2,381	3,747	2,017	378	1,310	9,832	631	823	1,454	11,286
2ND QUARTER	2,928	4,462	2,601	488	1,651	12,130	672	886	1,559	13,689
3RD QUARTER	2,665	4,240	2,684	429	1,534	11,554	618	732	1,350	12,903
4TH QUARTER	2,469	3,944	2,446	384	1,448	10,690	613	665	1,278	11,968
TOTAL YEAR	10,443	16,393	9,748	1,679	5,942	44,206	2,534	3,106	5,640	49,846
1986*										
1ST QUARTER	2,678	4,079	2,362	374	1,473	10,966	690	682	1,373	12,339
2ND QUARTER	2,850	4,733	2,837	558	1,731	12,709	657	793	1,450	14,159
3RD QUARTER										
4TH QUARTER										
TOTAL YEAR	5,528	8,813	5,199	932	3,204	23,675	1,347	1,476	2,823	26,498

* SUBJECT TO REVISION
** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHERS.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

09/02/86

TABLE 3

IMPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS											
	DOUGLAS FIR	OTHER FIR	HEMLOCK	SPRUCE	PINE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES (SAWED)	TOTAL LUMBER
1976	744.2	91.3	1,083.8	4,116.0	1,305.4	480.2	8.7	121.2	7,950.8	228.3	8.2	8,187.3
1977	990.7	299.4	1,219.2	5,361.6	1,795.5	537.7	22.2	154.0	10,380.3	341.1	7.4	10,728.8
1978	976.2	508.9	1,219.8	6,312.9	1,916.9	657.5	41.8	190.6	11,824.6	361.4	12.3	12,198.3
1979	827.3	588.3	912.3	6,740.4	1,182.5	637.8	35.4	193.7	11,117.7	376.2	29.3	11,523.2
1980	559.0	440.8	627.8	6,167.9	1,023.9	543.4	20.7	156.6	9,540.1	293.2	31.3	9,864.6
1981	483.3	534.7	467.0	6,010.7	941.7	574.4	17.0	175.9	9,204.7	291.1	24.9	9,520.7
1982	504.3	460.7	293.9	6,341.2	801.6	539.0	28.8	149.4	9,118.9	211.0	26.2	9,356.0
1983	600.3	708.6	416.7	8,354.4	919.8	664.1	73.5	239.9	11,977.4	260.5	12.5	12,250.4
1984												
1ST QUARTER	140.1	151.1	135.0	2,152.8	240.7	190.9	9.4	75.6	3,095.6	85.7	3.1	3,184.4
2ND QUARTER	137.1	168.6	96.8	2,390.5	251.8	136.3	9.0	59.3	3,249.4	87.1	6.6	3,343.1
3RD QUARTER	147.5	264.4	140.5	2,551.2	225.8	200.9	8.9	72.8	3,612.0	73.9	8.0	3,693.9
4TH QUARTER	178.2	181.0	142.6	2,377.0	183.4	176.1	7.7	67.3	3,313.2	81.0	6.5	3,400.7
TOTAL YEAR	603.0	765.1	514.9	9,471.4	901.6	704.1	35.0	275.0	13,270.2	327.7	24.2	13,622.2
1985												
1ST QUARTER	154.6	189.1	171.1	2,257.0	165.8	210.2	26.9	66.9	3,241.6	105.9	3.2	3,350.7
2ND QUARTER	205.9	200.0	185.6	2,907.4	237.8	233.3	10.2	89.2	4,069.3	96.1	11.8	4,177.2
3RD QUARTER	247.4	236.0	151.0	2,685.4	215.0	203.7	14.0	89.3	3,841.8	85.3	7.7	3,934.8
4TH QUARTER	157.1	166.8	136.2	2,543.6	198.6	160.7	16.0	76.1	3,455.1	76.3	5.1	3,536.4
TOTAL YEAR	765.1	791.8	643.9	10,393.4	817.2	807.9	67.1	321.5	14,607.8	363.6	27.7	14,999.1
1986												
1ST QUARTER	157.2	166.5	128.4	2,571.0	152.3	208.1	27.3	87.2	3,498.0	95.6	3.8	3,597.4
2ND QUARTER	179.1	238.0	154.9	2,957.5	180.3	269.8	30.4	119.1	4,129.1	88.9	10.0	4,228.0
3RD QUARTER												
4TH QUARTER												
TOTAL YEAR	336.3	404.5	283.3	5,528.5	332.6	478.0	57.7	206.2	7,627.2	184.5	13.7	7,825.4

EXPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS												
	DOUGLAS FIR	SOUTHERN PINE	PONDEROSA/ WHITE PINE	REDWOOD	HEMLOCK	SPRUCE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES \4 (SAWED)	TOTAL \5 LUMBER
1976	571.7	141.4	214.0	61.3	294.2	165.5	60.7	75.7	----	1,584.5	225.5	30.9	1,840.9
1977	488.3	157.8	195.0	48.1	264.2	150.7	61.3	47.0	----	1,412.4	226.1	19.2	1,657.7
1978	456.9	130.5	136.9	34.3	272.5	135.4	59.2	120.1	23.1	1,368.9	320.1	25.8	1,714.8
1979	505.4	195.1	147.7	30.1	463.7	151.1	56.0	179.4	16.2	1,744.7	306.6	90.5	2,141.8
1980	520.8	261.4	168.1	27.3	511.2	136.4	62.0	248.6	20.2	1,956.0	378.6	128.3	2,462.9
1981	509.0	211.2	203.8	37.7	390.2	141.4	66.9	280.6	16.8	1,877.6	405.7	88.8	2,372.1
1982	457.2	231.8	140.8	22.5	391.7	124.9	40.5	206.0	14.8	1,630.2	356.2	34.4	2,020.8
1983	559.3	208.4	197.3	24.0	376.2	113.9	46.8	207.8	10.8	1,744.5	478.2	47.2	2,269.9
1984													
1ST QUARTER	136.8	39.1	46.9	5.5	77.8	24.9	10.7	42.8	2.9	387.5	117.4	30.9	535.9
2ND QUARTER	139.3	53.5	45.0	15.1	81.8	19.8	10.1	56.0	3.8	444.2	129.3	9.4	582.9
3RD QUARTER	131.7	35.7	46.0	5.2	84.8	25.6	9.7	47.8	3.1	389.7	112.4	24.6	526.7
4TH QUARTER	104.3	44.1	36.3	4.4	93.1	27.7	8.7	56.1	3.3	377.9	107.4	19.7	505.0
TOTAL YEAR	532.1	172.4	174.1	30.1	337.4	98.1	39.2	202.7	13.1	1,599.3	466.5	84.6	2,150.4
1985													
1ST QUARTER	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7
2ND QUARTER	130.4	44.4	42.1	3.8	83.2	17.2	7.0	55.2	2.8	385.9	97.3	7.7	490.9
3RD QUARTER	113.2	39.5	44.4	3.5	78.2	14.2	6.4	65.5	3.1	368.1	96.3	17.1	481.4
4TH QUARTER	114.4	43.5	43.4	5.0	101.5	8.4	7.8	61.0	1.9	387.0	100.8	4.5	492.3
TOTAL YEAR	475.6	164.4	167.7	15.7	364.4	60.8	27.4	228.7	10.6	1,515.4	397.1	32.9	1,945.3
1986													
1ST QUARTER	135.9	42.2	49.7	2.9	130.1	24.6	6.8	76.2	2.4	470.9	112.0	4.5	587.4
2ND QUARTER	130.1	50.3	54.9	2.1	121.0	23.2	7.8	66.0	2.4	457.9	122.8	6.0	586.7
3RD QUARTER													
4TH QUARTER													
TOTAL YEAR	266.0	92.4	104.6	5.1	251.1	47.8	14.6	142.3	4.8	928.8	234.8	10.5	1 174.1

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1. Sawed timber, board planks and scantlings, flooring, box shook and railroad ties.
2. Includes siding and softwood lumber drilled or treated. Beginning 1978 includes siding and flooring. For exports, figures not availa prior to 1978.
3. Includes hardwood flooring, siding and hardwood lumber drilled or treated.
4. Includes a small amount of hewn railroad ties. Beginning with 1978 includes mine timber.
5. Includes box shook: 1973 - 4.4 mbf; 1974 - 6.1 mbf; 1975 - 4.1 mbf; 1976 - 6.0 mbf; 1977 - 5.8 mbf. Beginning with 1978 box shook is reported in appropriate species.

SOURCE: Foreign Agricultural Service, U.S. Department of Agriculture; Forest Products Division, BIE, U.S. DOC, from data of the Foreign Trade Division, Bureau of Census.

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

09/02/86

TABLE 4

ESTIMATED GROSS MILL STOCKS OF LUMBER AND UNFILLED ORDERS FOR LUMBER BY REGION

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
GROSS MILL STOCKS										
DECEMBER 31ST										
1976	1,245	949	1,315	434	271	4,214	453	432	885	5,099
1977	1,192	964	1,329	359	265	4,109	412	385	797	4,906
1978	1,197	903	1,295	377	260	4,032	422	398	820	4,852
1979	1,225	918	1,379	435	273	4,230	558	547	1,105	5,335
1980	1,424	912	1,185	434	273	4,228	780	792	1,572	5,800
1981	1,451	912	1,149	385	270	4,167	841	886	1,727	5,894
1982	1,741	862	1,055	336	276	4,270	775	764	1,539	5,809
1983	1,708	994	1,279	334	291	4,606	708	626	1,334	5,940
1984*										
1ST QUARTER	1,801	1,135	1,405	348	310	4,999	710	633	1,345	6,225
2ND QUARTER	1,808	1,136	1,439	352	312	5,047	722	652	1,374	6,421
3RD QUARTER	1,782	1,083	1,368	344	304	4,881	765	719	1,484	6,365
4TH QUARTER	1,808	914	1,257	325	290	4,594	795	761	1,556	6,150
1985*										
1ST QUARTER	1,875	970	1,352	392	305	4,894	797	767	1,564	6,458
2ND QUARTER	1,817	855	1,316	351	292	4,631	820	804	1,624	6,255
3RD QUARTER	1,847	891	1,309	363	295	4,705	849	849	1,698	6,403
4TH QUARTER	1,863	899	1,312	360	296	4,730	853	855	1,708	6,438
1986*										
1ST QUARTER	1,853	921	1,359	426	302	4,861	864	868	1,732	6,593
2ND QUARTER	1,866	813	1,260	376	290	4,605	874	882	1,756	6,361
3RD QUARTER										
4TH QUARTER										
ESTIMATED UNFILLED ORDERS										
DECEMBER 31ST										
1976	450	634	554	227	264	2,129	243	157	400	2,529
1977	488	565	590	271	267	2,181	292	214	506	2,687
1978	535	553	469	234	259	2,050	332	253	585	2,635
1979	553	529	403	138	246	1,869	256	163	419	2,288
1980	499	499	326	111	230	1,665	197	90	287	1,952
1981	544	429	219	111	222	1,525	225	121	346	1,871
1982	590	612	324	150	244	1,920	221	144	365	2,285
1983	783	674	420	141	260	2,278	253	182	435	2,713
1984*										
1ST QUARTER	692	824	457	121	263	2,357	289	225	514	2,900
2ND QUARTER	664	633	373	78	246	1,994	235	183	418	2,487
3RD QUARTER	640	650	414	89	248	2,041	212	157	369	2,253
4TH QUARTER	561	561	407	108	240	1,877	222	170	392	2,453
1985*										
1ST QUARTER	515	582	413	118	240	1,868	248	187	435	2,303
2ND QUARTER	525	556	500	128	244	1,953	224	159	383	2,336
3RD QUARTER	617	565	460	89	245	1,976	234	174	408	2,384
4TH QUARTER	595	528	433	95	240	1,891	227	166	393	2,284
1986*										
1ST QUARTER	680	645	554	149	259	2,287	280	213	493	2,780
2ND QUARTER	620	452	457	118	238	1,885	273	198	471	2,356
3RD QUARTER										
4TH QUARTER										
UNFILLED ORDERS IN RELATION TO GROSS MILL STOCKS (Unfilled Orders As Percentage of Mill Stocks)										
1976	36%	67%	42%	52%	97%	51%	54%	36%	45%	50%
1977	41%	59%	44%	75%	101%	53%	71%	56%	63%	55%
1978	45%	61%	36%	62%	100%	51%	79%	64%	71%	54%
1979	45%	58%	29%	32%	90%	44%	46%	30%	38%	43%
1980	35%	55%	28%	26%	84%	39%	25%	11%	18%	34%
1981	37%	47%	19%	29%	82%	37%	27%	14%	20%	32%
1982	34%	71%	31%	45%	88%	45%	29%	19%	24%	39%
1983	46%	68%	32%	42%	89%	49%	36%	29%	33%	46%
1984*										
1ST QUARTER	38%	73%	33%	35%	85%	47%	41%	36%	38%	47%
2ND QUARTER	37%	56%	26%	22%	79%	40%	33%	28%	30%	39%
3RD QUARTER	36%	60%	30%	26%	82%	42%	28%	22%	25%	35%
4TH QUARTER	31%	61%	32%	33%	83%	41%	28%	22%	25%	40%
1985*										
1ST QUARTER	27%	60%	31%	30%	79%	38%	31%	24%	28%	36%
2ND QUARTER	29%	65%	38%	36%	84%	42%	27%	20%	24%	37%
3RD QUARTER	33%	63%	35%	25%	83%	42%	28%	20%	24%	37%
4TH QUARTER	32%	59%	33%	26%	81%	40%	27%	19%	23%	35%
1986*										
1ST QUARTER	37%	70%	41%	35%	86%	47%	32%	25%	28%	42%
2ND QUARTER	33%	56%	36%	31%	82%	41%	31%	22%	27%	37%
3RD QUARTER										
4TH QUARTER										

* SUBJECT TO REVISION.

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHER.

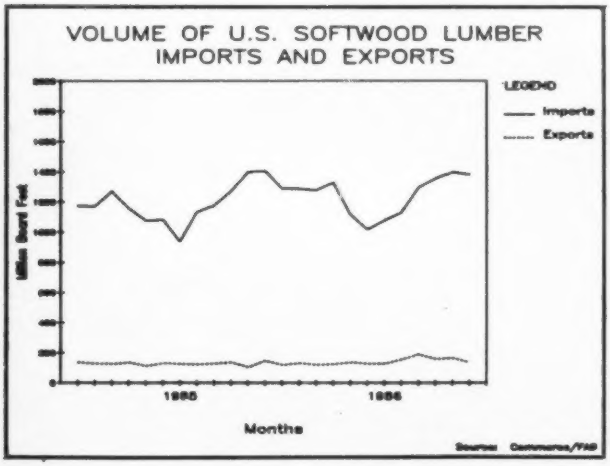
SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS BECAUSE OF ROUNDING.

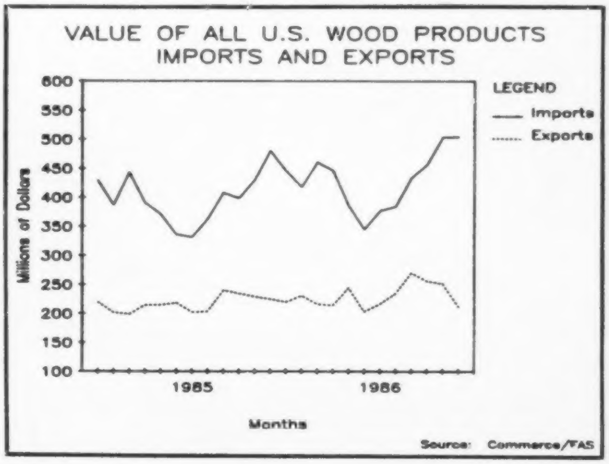
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE ($000)			
		June '86	6 mo. 1986	% Change From May '86	% Change From 6 mo. 1985	June '86	6 mo. 1986	% Change From May '86	% Change From 6 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	134.8	928.8	-18.5%	22.2%	48,509	309,502	-17.9%	23.6%
To Canada	MMBF	27.9	178.8	-9.2%	22.3%	7,033	44,245	-8.0%	19.5%
SOFTWOOD LOGS	MMBF	231.6	1,674.3	-13.6%	-9.8%	79,709	539,826	-11.5%	-7.2%
SOFTWOOD PLYWOOD	MMSF 3/8"	23.1	298.1	23.5%	74.7%	5,455	64,287	23.4%	61.6%
HARDWOOD LUMBER	MMBF	42.9	234.8	9.7%	17.4%	28,447	161,710	2.9%	30.3%
HARDWOOD LOGS	MMBF	6.3	65.4	-39.8%	-1.7%	5,455	60,430	-52.3%	8.4%
HARDWOOD VENEER	MMSFsurf	90.3	464.1	5.2%	21.4%	6,192	37,669	-18.6%	22.1%
PARTICLEBOARD	MMSF 3/4"	15.6	80.9	28.4%	51.3%	3,189	15,935	29.3%	48.7%
ALL OTHER		NA	NA	NA	NA	33,189	244,208	-30.1%	3.8%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	211,085	1,439,085	-15.9%	7.9%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,379.0	7,627.2	-1.2%	4.3%	303,221	1,580,064	-0.8%	11.2%
From Canada	MMBF	1,364.9	7,563.5	-1.9%	4.0%	299,312	1,565,864	-1.6%	10.8%
SOFTWOOD LOGS	MMBF	4.8	20.0	36.2%	-43.1%	720	2,259	69.8%	-76.6%
SOFTWOOD PLYWOOD	MMSF 3/8"	13.4	69.3	-15.0%	62.3%	3,130	18,020	-20.9%	76.2%
HARDWOOD LUMBER	MMBF	27.7	184.5	-25.7%	-8.6%	14,767	86,573	-14.0%	-12.0%
HARDWOOD LOGS	MMBF	2.8	10.9	10.6%	24.9%	393	1,897	14.2%	6.3%
HARDWOOD VENEER	MMSFsurf	135.7	812.9	0.7%	22.2%	10,112	57,351	-3.0%	15.6%
HARDWOOD PLYWOOD	MMSF 3/8"	326.4	2,011.3	7.9%	9.6%	40,481	247,469	6.8%	5.8%
HARDBOARD	MMSFsurf	93.2	471.0	33.6%	33.1%	5,285	29,508	14.2%	11.8%
PARTICLEBOARD	MSF 3/4"	104.2	445.0	8.4%	-7.7%	13,979	71,212	5.9%	9.0%
ALL OTHER		NA	NA	NA	NA	111,616	563,832	2.3%	14.6%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	504,239	2,660,129	0.1%	10.4%

Note: Volume total is not possible because the products are in different units of measure.
Note: Particleboard imports include OSB/Waferboard.



Source: Commerce/FAS



Source: Commerce/FAS

VALUE OF NEW CONSTRUCTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	June '86	May '86	June '85	6 mo. '86	6 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	34.7	8.1%	9.8%	170.8	8.7%
Private	27.9	7.7%	9.1%	140.3	7.3%
Residential	16.9	12.7%	18.4%	77.4	12.5%
Nonresidential & Other	11.0	0.9%	-2.5%	62.9	1.5%
Public	6.7	9.8%	10.9%	30.3	14.9%

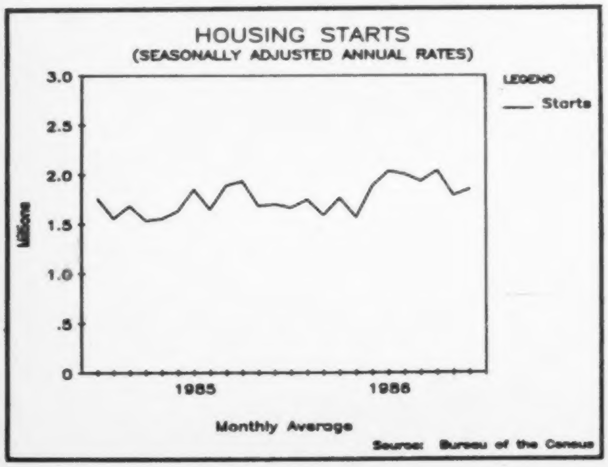
HOUSING STARTS

	June '86	May '86	June '85	6 mo. '86	6 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	183.8	-1.6%	12.5%	932.6	8.9%
New Private Starts	183.3	-1.8%	12.3%	931.9	9.0%
Seas. Adj. Annual Rate	1852	-0.1%	8.9%		
One-Family Housing Starts	125.0	-0.9%	22.9%	603.6	13.2%
Proportion of Total	68.0%			64.7%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	21,400	-4.9%	-14.7%	124,900	-11.8%

INDUSTRY EMPLOYMENT

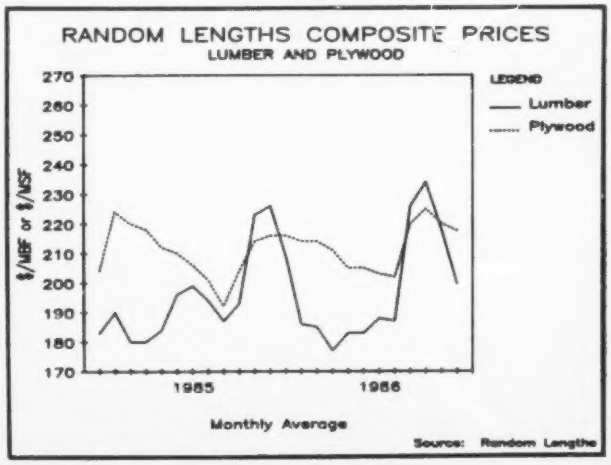
EMPLOYMENT STATISTICS

		----% Change From---	
	June '86	May '86	June '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	99,867	-0.1%	2.5%
All Manufacturing Industries	19,145	-0.3%	-1.3%
Lumber and Wood Products	721	0.3%	3.7%
Furniture and Fixtures	495	-0.2%	0.2%



HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census



RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Lengths

Older plants have been updated with computers to perform process monitoring and control functions. In 1982, industry capital investments totaled $36 million.

Production costs as reported in the Census of Manufactures figures are detailed in Table II for 1977 and 1982. Raw material accounts for approximately 25 percent and adhesives 21 percent of the total.

Table II: Wood residues account for 25 percent of production costs for particleboard and MDF.

CENSUS OF MANUFACTURES HIGHLIGHTS

	1982		1977	
	$	% of Total	$	% of Total
PRODUCTION COSTS	537.4	100.0%	452.9	100.0%
Materials				
Wood	135.3	25.2%	80.4	17.8%
Adhesives	112.8	21.0%	106.5	23.5%
Other	86.4	16.1%	58.4	12.9%
Labor	99.8	18.6%	79.1	17.5%
Other	103.1	19.2%	128.5	28.4%
CAPITAL EXPENDITURES	36.0	NA	32.5	NA
VALUE OF SHIPMENTS	553.7	100.0%	476.5	100.0%
Floor Underlayment	93.8	16.9%	122.0	25.6%
Mobile Home Decking	45.5	8.2%	40.8	8.6%
Shelving	10.1	1.8%	22.2	4.7%
Door Core	26.3	4.7%	21.4	4.5%
Other Industrial Board:				
3/4 in. thick	128.3	23.2%	98.7	20.7%
5/8 in. thick	65.0	11.7%	33.2	7.0%
1/2 in. thick	28.8	5.2%	24.8	5.2%
All Other	110.7	20.0%	81.5	17.1%
Other	33.0	6.0%	18.5	3.9%

Note: Value of shipments reported by the Dept. of Commerce differs from that reported by the National Particleboard Association due to classification and other reporting differences.

Source: Dept. of Commerce, Bureau of 1977 and 1982 Census of Manufactures. National Particleboard Assoc.

Regulatory Environment

The regulation of products made using formaldehyde is the most important issue confronting producers of particleboard and MDF, as well as other pressed wood products which use formaldehyde based resins. The Consumer Products Safety Commission (CPSC), the Environmental Protection Agency (EPA) and the Occupational Health and Safety Administration (OSHA) are each considering the health risks associated with formaldehyde emissions from wood products. Any decision to significantly restrict formaldehyde emissions from wood products would severely impact the market for these products.

In an effort to address concerns about urea formaldehyde, the industry is moving toward adopting voluntary standards for permissible levels of formaldehyde emissions from its products. A level of 0.3 ppm for particleboard has been adopted and a level of 0.2 ppm for decorative paneling (usually made from hardwood plywood or hardboard) is being proposed, both as industry-wide standards. These levels are currently required by HUD (Department of Housing and Urban Development) for wood products used in manufactured housing. However, the industry is trying to adopt these standards for all production, not just that destined for manufactured housing. The hope is that CPSC and EPA will

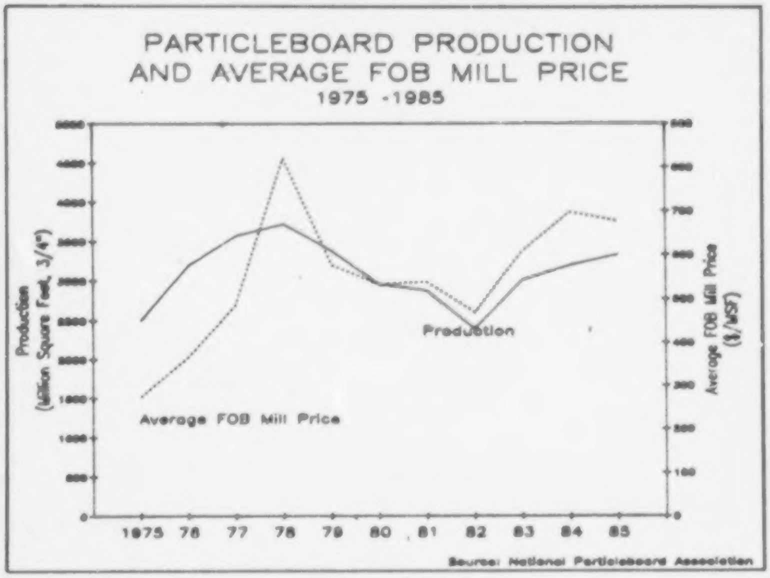


Figure 2: Particleboard production has been relatively stable since the 1970s.

decide that public health is being adequately protected by this effort.

Trade Picture

Imports of particleboard and MDF exceed exports by 22 percent, although they account for only 4 percent of U.S. consumption. In 1985, imports of particleboard and MDF amounted to an estimated 152 million square feet.

Precise statistics on particleboard and MDF imports have been elusive because the Department of Commerce classifies as particleboard other types of panel products, including waferboard and oriented strand board. The industry has been urging Commerce to change its classification procedures in order to separate structural from non-structural panel products in the trade statistics. NFPA estimates that approximately 80 percent of the material classified as particleboard by Customs is in fact waferboard and OSB.

Exports of particleboard and MDF have ranged from 95 to 119 million square feet in recent years. Major customer countries in 1985 include: Canada (49 MMSF), Taiwan (33 MMSF), Korea (16 MMSF), Mexico (12 MMSF) and Singapore (6 MMSF). Exports of particleboard during the first six months of 1986 were up 60 percent over last year.

The United States producers must compete with other world producers. Capacity in Europe is more than double that of the United States. Japan and Taiwan also are major producers in Asia. However, particleboard products produced in Asia tend to be of lower quality because of the inconsistency of the furnish, typically made up of a numerous variety of species. Hence, U.S. exports to Asia have fared relatively well.

U.S. exports to Asia, specifically to Taiwan and Singapore, may find their way back to the United States in imported furniture. However, statistics on the volume of U.S. particleboard in these imports are unavailable.

Outlook -- Bright This Year; Longer Term Cloudy

Shipments of particleboard were up seven percent and MDF were up 15 percent during the first six months of this year from the first six months of 1985. This will likely be the highest production year since 1978. Average industry F.O.B. mill prices have been very stable since 1980 on a constant dollar basis, with moderate decrease relative to the Consumer Price Index. The market for MDF has remained relatively firm, more so than particleboard or other wood products. A number of factors influence the outlook for these markets in the near and long term.

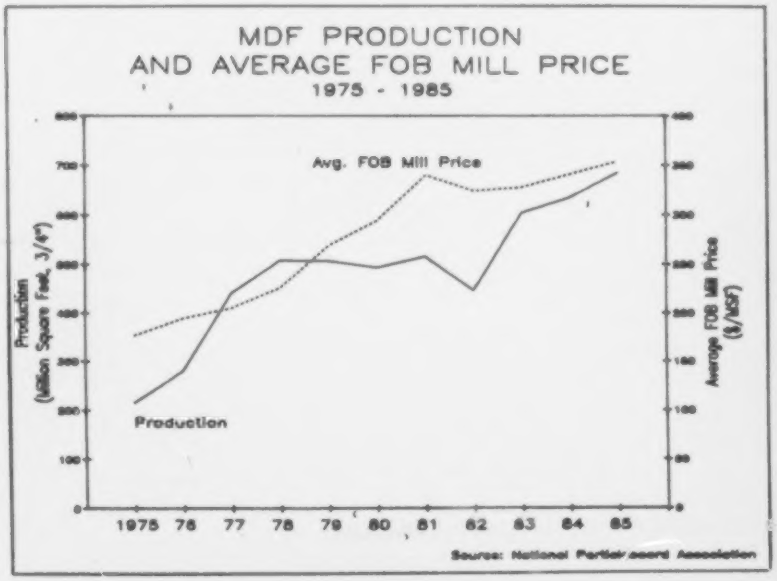
Raw Material. The availability of mill residues is often an important limitation on the production potential of particleboard and MDF. The supply of mill residues can change, due to competitive forces and other factors including: use of residues by lumber mills for boiler fuel, changes in pulp mill demand, changes in sawmill technology or output and demand for wood fuels from commercial power plants or other wood energy users. *Regulatory.* The continuing regulatory proceedings involving urea formaldehyde products also casts uncertainty on the market for particleboard and MDF. Should the use of urea formaldehyde in wood products be restricted, the market for pressed wood products could be severely changed. Price increases that would result from changing adhesives would impair the competitiveness of these products. According to an analysis by the National Particleboard Association, a prohibition on urea formaldehyde could result in added production costs of at least $600 million annually, while a complete ban on all formaldehyde resins would more than double that figure.

Furniture Imports. Imports of furniture limit the market for U.S. producers of particleboard and MDF. Manufactured from particleboard, these imports not only impact the U.S. furniture industry, but its particleboard and MDF suppliers as well. Imports of wood furniture increased 160 percent between 1980 and 1984, to $1.2 billion.

Canadian Production. The tremendous increase in Canadian production of lumber also has had an impact on the U.S. particleboard industry by providing a ready supply of residues to Canadian producers of particleboard. Hence, Canadian production of particleboard has grown from less than 384 million square feet in 1975 to 590 million square feet in 1985. Canadian exports of particleboard have doubled since 1980.

In Brief

Particleboard shipments will likely hover around the 3.2 billion square foot mark through the rest of this decade, ebbing and flowing with cycles of furniture demand and construction activity. Demand is growing for higher quality board geared toward the Do-It-Yourself market and for board which can tolerate extremely thin paper overlays. The recent downturn in the value of the U.S. dollar coupled with growing acceptance of higher quality material for furniture and overlay applications, bodes well for the U.S. industry. The MDF market should see rising demand, growing to a billion square feet by 1990 as that product is used more widely in the furniture and specialty markets.



Source: National Particleboard Association

Figure 3: MDF production has been on the rise for the past several years.

U.S. LUMBER PRODUCTION BY STATE
1983 - 1985

	1985 Rank	TOTAL LUMBER			SOFTWOODS			HARDWOODS		
		1985	1984	1983	1985	1984	1983	1985	1984	1983
TOTAL U.S.		37,080	37,233	35,370	31,249	31,174	29,726	5,831	6,059	5,644
Oregon	1	7,251	7,242	6,632	7,211	7,202	6,579	40	40	53
Washington	2	3,558	3,836	3,951	3,419	3,697	3,821	139	139	130
California, Nevada	3	2,453	2,242	2,020	2,438	2,227	1,994	15	15	26
Georgia	4	2,141	2,260	2,206	2,099	2,192	2,033	160	166	228
Alabama	5	2,029	1,934	1,713	1,774	1,661	1,503	323	322	244
Mississippi	6	1,799	1,806	1,764	1,510	1,520	1,479	336	327	312
Idaho	7	1,676	1,687	1,660	1,676	1,686	1,657	0	1	3
North Carolina	8	1,594	1,516	1,645	1,268	1,161	1,293	354	370	367
Arkansas	9	1,546	1,585	1,511	1,374	1,440	1,308	228	198	230
Montana	10	1,445	1,387	1,316	1,445	1,387	1,316	0	0	0
South Caroilna	11	1,317	1,322	1,256	1,203	1,177	1,099	168	186	182
Texas	12	1,121	1,127	880	1,047	1,063	841	126	108	64
Virginia	13	928	930	883	489	498	511	404	407	359
Maine	14	841	843	969	773	767	844	103	104	142
Florida	15	715	715	637	735	720	636	26	31	23
Louisiana	16	601	660	763	506	520	646	111	149	129
Tennessee	17	537	554	375	148	139	119	341	374	239
Pennsylvania	18	481	475	453	16	15	17	398	408	400
Indiana	19	468	435	400	4	8	8	397	378	360
Wisconsin	20	436	409	335	81	84	83	307	292	234
West Virginia	21	382	425	306	6	6	8	322	371	274
Arizona	22	361	385	337	361	384	337	0	1	0
New York	23	328	366	390	78	95	92	218	245	277
Ohio	24	287	264	279	1	1	7	245	233	250
Kentucky	25	282	307	285	4	9	9	238	264	254
Michigan	26	242	265	254	34	27	25	180	213	211
Oklahoma	27	238	257	244	199	211	212	44	50	36
Missouri	28	223	235	178	15	13	15	179	197	150
South Dakota	29	219	192	178	219	192	178	0	0	0
New Mexico	30	185	172	191	185	172	191	0	0	0
Wyoming	31	182	174	171	182	173	171	0	1	0
Minnesota	32	171	169	201	68	61	66	92	99	126
New Hampshire	33	167	143	139	143	122	116	29	24	25
Del., Md.	34	143	154	118	69	64	61	67	83	54
Colorado	35	129	134	123	129	134	123	0	0	0
Alaska, Hawaii	36	129	149	161	139	157	167	0	0	0
Vermont	37	115	102	89	68	65	51	44	36	36
Massachusetts	38	80	98	103	45	46	50	33	48	50
Utah	39	73	67	55	73	67	55	0	0	0
Illinois	40	72	80	62	0	0	0	62	71	57
Conn., Rhode Is.	41	68	62	51	12	12	2	48	45	45
Iowa	42	35	29	51	1	0	1	29	26	46
Kansas, Neb.	43	23	28	23	1	1	5	18	24	17
New Jersey	44	8	12	11	1	1	0	6	10	10

Source: Dept. of Commerce; Western Wood Products Association; National Forest Products Association

LUMBER NUMBER REVISIONS

Periodically NFPA revises its national lumber statistics to conform with revisions received from regional association and/or the Department of Commerce. These revisions are designed to provide an accurate and consistent statistical series.

The above table details revised lumber production by state for the years 1983 through 1985.

A7870-3

NFPA AN ECONOMICS BULLETIN OF THE FOREST PRODUCTS INDUSTRY

ECONOMICS MONTHLY

Volume II Number 9 September 1986

MONTHLY STATISTICAL HIGHLIGHTS

Costs of energy to industrial consumers fell during the second quarter, 1986. The average cost nationwide for natural gas declined by 16 percent; purchase electricity by 1.4 percent.

Shipments of structural panels during the first seven months of 1986 were up 14.3 percent.

U.S. consumption of softwood lumber is continuing to set records, up 8.5 percent during the first seven months of the year.

Softwood log exports are down 13 percent this year, primarily because of fewer shipments to China.

Imports of hardboard were up nearly 30 percent during the first seven months.

CHINA -- ONE BILLION PEOPLE, ONE BILLION DOLLAR POTENTIAL

China could become the single largest importer of American wood products within the next five years. So concludes a newly issued study commissioned by the National Forest Products Association with the sponsorship of the Department of Agriculture's Foreign Agricultural Service (FAS). The study, conducted by DBC Associates in Bejing, China, provides a comprehensive analysis of the Chinese wood market, resource conditions, distribution systems, and manufacturing structure.
The study quantifies what has been suspected for the past few years: that if a concerted, carefully formulated industry strategy were developed, U.S. producers could find a growing market for logs, lumber and panels in the People's Republic of China.

Background

China is a vast area characterized by an agrarian economy, massive population, limited natural resources and an all-pervasive political structure. The country is only slightly larger than the United States, but has five times as many people. The large population and a rapidly developing economy have created an enormous demand for housing and other construction. Rapid growth has been accommodated through significant economic reforms under the current leader, Deng Xiaoping, but China is not moving toward capitalism. It is a socialist country with a totalitarian government, run under mandatory planning in all industrial sectors. The State, through the Central Committee, sets wages and production quotas, controls distribution and sets prices.

Economic reforms during the early 1980's introduced incentives geared toward increasing production in the industrial as well as agricultural sectors. The changes were all too successful, the resulting rapid growth causing instability in the economic/political system. Hence, the central Committee reasserted state controls in many areas that had been allowed to operate more independently. The reforms have not resulted in a large free market readily accessible to U.S. producers, although China's developing economy has created enormous demand which can only be met by imports to the country.

Timber Resources

Forestland in China covers roughly 99 million hectares (227 million acres), or 12 percent of the total land area. Seventy-three percent of the forestland can be considered commercial; that is, available to supply industrial roundwood. However, most of the forestland is located in remote areas of the Northeast and Southwestern regions. Accessible forests are generally poorly stocked and over-exploited.

Currently, annual harvests, estimated to be on the order of 64

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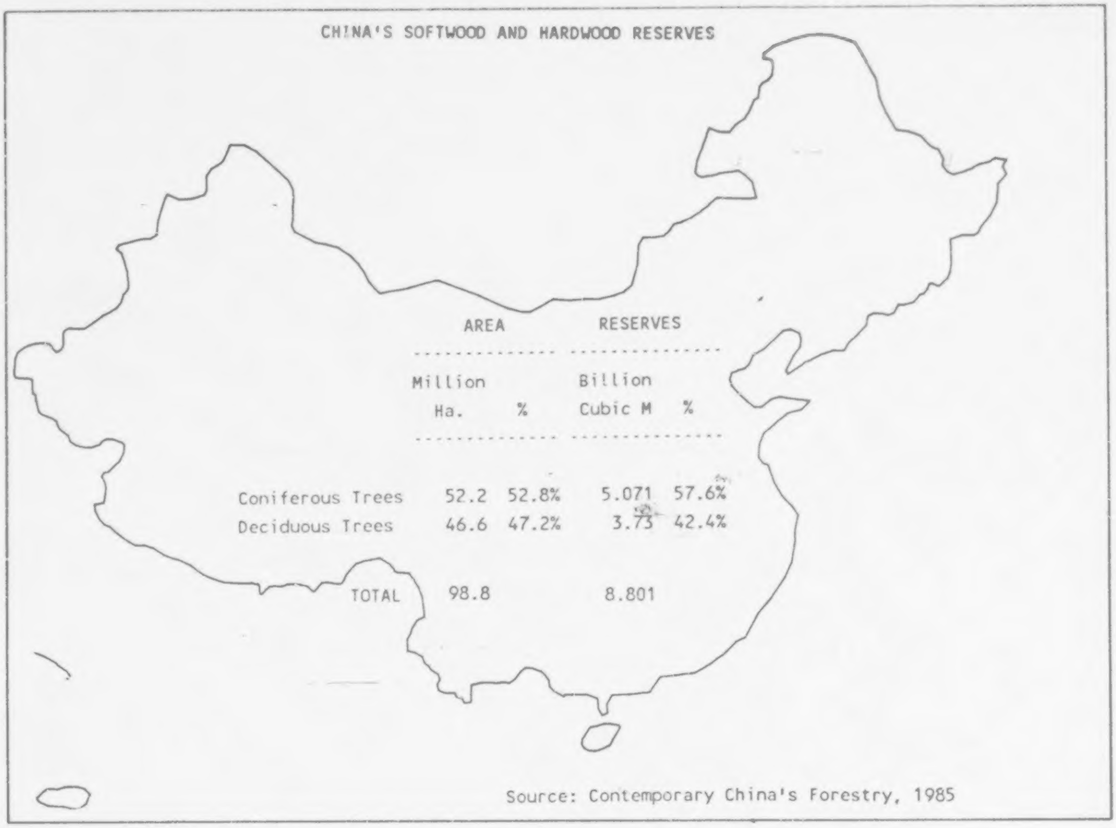


CHINA'S SOFTWOOD AND HARDWOOD RESERVES

	AREA		RESERVES	
	Million Ha.	%	Billion Cubic M	%
Coniferous Trees	52.2	52.8%	5.071	57.6%
Deciduous Trees	46.6	47.2%	3.73	42.4%
TOTAL	98.8		8.801	

Source: Contemporary China's Forestry, 1985

Figure 1: Only 12 percent of China's vast land area is forested; 58 percent is of coniferous species.

billion board feet (290 million m^3), appear to exceed annual growth by a worrisome 32 percent. In some provinces, removals exceed growth by even larger percentages. The proportion of softwoods in the inventory has also been steadily declining, from about 70 percent in 1965 to 58 percent in 1984 (Figure 1). It is important to note that there is timber harvested within the context of State plans and there is timber that is harvested outside of the authorized program. Less than a quarter of the harvest is for planned consumption in State-approved projects (14.7 billion board feet or 67 million m^3). The balance is cut for firewood, agricultural applications, and peasant home construction. Much of the harvest goes unreported; much is lost through fires and logging inefficiencies (Figure 2).

At the current rate of exploitation, the Chinese may well run out of timber by the turn of the century, or shortly thereafter. To prevent a timber famine, the Ministry of Forestry has been charged with an ambitious afforestation program. The program has successfully increased the land devoted to forests during the past decade, but not enough to meet anticipated future needs. The forest plan is to increase forest cover to 20 percent of the total land base by the year 2000 and follow a nondeclining, even flow, sustained yield management policy. But, illegal logging hinders these objectives.

The State has made significant changes in its forest and wood policies during the past few years. For example, Marxist philosophy places no economic value on natural resources until labor is added. Therefore, standing trees don't have any economic value until harvested and processed. In China, this has resulted in over-exploitation of the forests, particularly in the rural cooperatives, as timber has been viewed as a free commodity. Reforms in the early 1980's brought a revamping of this system. Standing trees are now valued economically, reflecting to some extent their replacement value. Inclusion of raw material costs in the final sales prices of wood products is now also encouraged.

Local timber collectives are now permitted to sell logs to processors under negotiated contracts, albeit within ceilings established by the central government. The hope is that the limited incentives for profit that exist under this new decentralized system will encourage more forest management. The State has also granted land rights to peasants in certain areas provided they afforest the land. A Forest Law enacted in 1984 and amended again in 1986 attempts to bring a greater degree of planning into harvesting and consumption activity. It restricts cutting and provides severe penalties for illegal felling. Needless to say, enforcement has been difficult.

China has a goal of producing over 22 billion board feet (100 million m^3) of timber inside the Plan by the year 2000, nearly double its current production rates. Because of the host of problems associated with the country's domestic resources, it is highly unlikely this goal will be realized.

The official policy of the government discourages the use of wood products in order to preserve domestic timber supplies. Use of concrete, plastics, steel and cardboard are encouraged where wood might otherwise be utilized. But numerous problems have arisen through this policy and most end-users question its effectiveness.

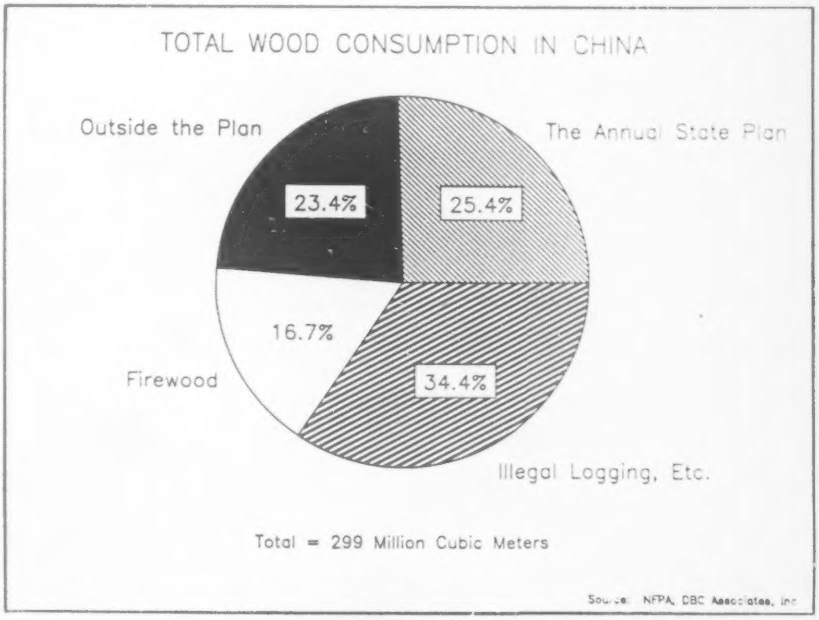
China's Wood Industry

The Chinese wood products industry is dominated by small sawmills. About 155 mills are operated by the Ministry of Forestry, another 500 - 700 mills are operated by other ministries, provincial or municipal entities including Timber Supply Corporations. Thousands of other small sawmills dot the country. The mills are generally poorly designed and inefficient. Refurbishment and new construction of sawmills does not appear to be a priority in State planning.

Elements of Demand

Consumption of wood products in China can be grouped into four categories: (1) consumption inside the State Plan; (2) consumption outside the Plan; (3) firewood; and (4) miscellaneous uses and losses.

Consumption inside the State plan includes that which is procured



Source: NFPA, DBC Associates, Inc

CONSUMPTION OF STATE PLANNED DOMESTIC WOOD BY MARKET SECTOR

		Quantity (Million Cubic M)		
Market Sector	%	1981	1984	1985
Capital Construction	20.2%	10.0	12.9	13.5
--Doors, Windows (50%)				
--Concrete Forming (45%)				
--Scaffolding (5%)				
Mining Props	13.6%	6.7	8.7	9.1
Packaging	10.1%	5.0	6.4	6.7
Fuelwood	8.1%	4.0	5.2	5.4
Paper	7.5%	3.7	4.8	5.1
Furniture	4.7%	2.3	3.0	3.1
Agricultural Uses	3.4%	1.7	2.2	2.3
Rolling Stock	3.0%	1.5	1.9	2.0
Plywood	1.4%	0.7	1.0	1.0
Railroad Ties	1.0%	0.5	0.7	0.7
Utility Poles	1.0%	0.5	0.7	0.7
Posts	0.8%	0.4	0.5	0.5
Thinning of Forests	5.9%	2.9	4.0	4.2
Other	19.2%	9.5	11.8	12.7
TOTAL	100.0%	49.4	63.8	67.0

Source: Min. of Forestry, Forestry Economics Research Agency

Table 1: Capital construction applications are different than what is encountered in the U.S.

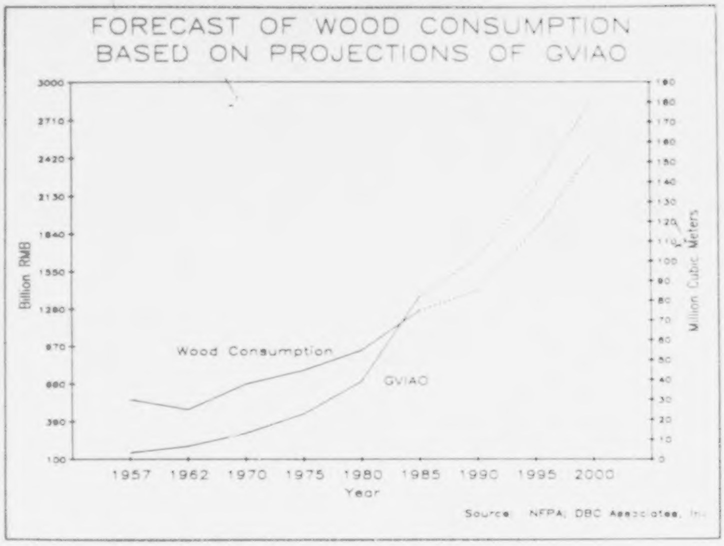
by the ministries, industrial enterprises, and urban construction authorities. In all cases, the the Ministry of Forestry is the domestic supplier; distribution is handled through the China Timber Corporation and the Provincial timber corporations. Supplies of wood to all processors and end-users are approved by the State in accordance with needs set forth by Provincial and State planning Commissions. Table 1 outlines consumption of lumber within the state plan, by market sector.

Consumption outside the Plan is permissible by collectives and individuals, provided the harvest does not exceed growth. Local forestry bureaus are responsible for enforcement. Timber harvested by collectives and individuals can be sold to the State to meet its supply requirements, but most is used by peasants and collectives for housing, rural construction, furniture and so forth.

A large amount of roundwood is burned for fuel each year. This use is approved, but not policed. The equivalent of 24 million cords (50 million m^3) of wood is believed to be burned annually. Finally, a dramatic amount of wood -- estimated at 23 billion board feet (103 million m^3) -- is consumed illegally or is wasted through destruction or inefficiencies.

Wood consumption has paralleled the rise of the Chinese equivalent to the Gross National Product, referred to as the Gross Value of Industrial and Agricultural Output (GVIAO). As this measure has grown from 224 million renmimbi (RMB) in 1965 to 1,327 RMB in 1985, planned wood consumption has nearly doubled from 9 billion board feet (41 million m^3) to 17 billion board feet (76 million m^3), including imports (Figure 3). Wood consumption per unit of the GVIAO, however, has declined. China's planners have determined that the minimum level of roundwood consumption needed to meet economic objectives is .08 million m^3 per billion RMB of growth. This is about the current level. At the same time they have determined that wood consumption should drop to .056 million m^3 per billion RMB in order to conserve domestic resources. Presumably, the difference is to be made up by imports.

Even using the most conservative estimate of wood use leads to the



Source: NFPA; DBC Associates, Inc.

Figure 3:
Wood consumption is expected to grow dramatically even under the most conservative scenarios.

conclusion that the growth in wood demand under the State Plan during the next twenty years will be dramatic. It is projected to increase from 15 billion board feet (70 million m^3) to 40 billion board feet (180 million m^3) by the year 2000. Even if planned consumption should fall short of that projection, the need for increased imports is anticipated (Figure 4). China's planners believe that at least 13 percent of planned consumption will consist of imports. This is probably unrealistically low since imports currently account for 12 percent of consumption.

More Converted Products Likely

The maximum annual sawmilling capacity in China today is estimated to be only 25 million m^3 (10.5 billion board feet lumber tally). With refurbishment and new construction, this capacity could increase to 30 million m^3 (12.5 billion board feet) by 1990. This capacity is not likely to be exceeded because there are no existing plans to improve sawmilling capacity or to make other investments in existing mills. And no growth in the rate of lumber production is planned for the next five years. Moreover, the lion's share of the sawmilling capacity is located in the coastal provinces where few opportunities exist for expansion. Imported logs can be converted at these sites, but as the capacity is exceeded, imported lumber will be in demand. Therefore, the study concludes that U.S. lumber could account for as much as 1.2 billion board feet (2.8 billion m^3) by the year 2000. Furthermore, with an aggressive marketing strategy in place, the U.S. could capture 55 percent of total lumber imports.

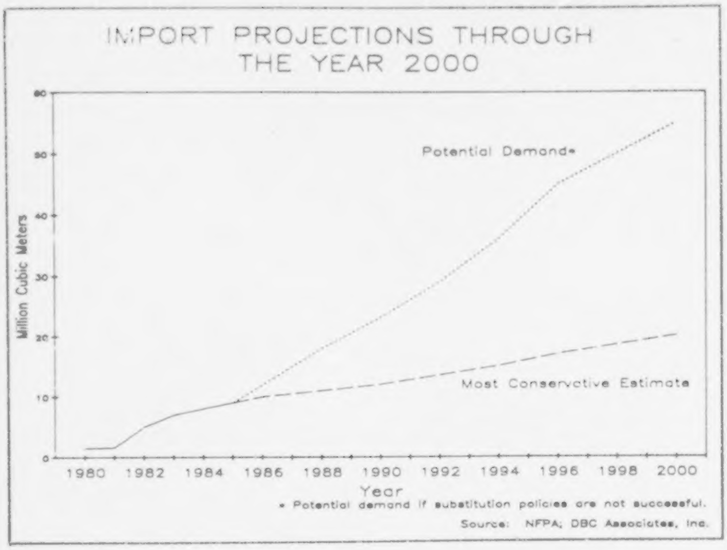
The U.S. faces stiff competition with the USSR, Canada and Chile in supplying the Chinese market. During the first seven months of 1986, U.S. exports to China were down 38 percent. This is attributable to a shortage of foreign exchange and increases of imports from the other countries.

China first began importing softwood lumber in 1981. Although the volume was small, 63 million board feet, the U.S. supplied 55 percent. In 1985, total lumber imports represented 122 million board feet, but the U.S. share declined to 14 percent; Canada has become the major supplier of lumber to China.

The major competitors for the U.S. in supplying plywood are Indonesia, the Philippines and Taiwan. The Chinese import most of their plywood from Indonesia. Although of low quality and strength, the imported plywood appears sufficient for the Chinese furniture industry. Plywood has not yet found a foothold in construction. Only a small amount of softwood plywood is currently being imported.

China's Import Policy

China's import decisions are largely political, motivated by the need to supply the materials for modernization in industry and agriculture, and to slow depletion of


IMPORT PROJECTIONS THROUGH THE YEAR 2000

* Potential demand if substitution policies are not successful.

Source: NFPA; DBC Associates, Inc.

domestic reserves of timber. China imports wood for four basic reasons:

- to make up for the domestic shortage of wood;
- to obtain large size and high quality wood;
- to balance the available species;
- to supply improved exporting enterprises.

All imports of wood must be approved by the State Planning Commission and must conform to national priorities in the State Plan. User demand is of little importance when import decisions are made, and is insignificant relative to State development priorities.

State policy dictates that reserves of foreign exchange be used judiciously, so barter trade is preferred to expenditures whenever possible. The primary factor determining source of imports is price.

All requisitions to import wood products from North America must be consolidated under the China Timber Import Export Corporation (CTIEC) for purchase approval. But requisitions to purchase Southeast Asian wood by local Timber Corporations need approval only from the local Timber Import Export Corporations. These purchases do not require approval from the national body.

The Competition

Because of its proximity, the U.S.S.R. can be a major supplier of roundwood to China. In fact, unconfirmed reports of an agreement on timber trade between the two countries have circulated. Since the agreement would provide for barter trade of unspecified commodities, it would require no use of foreign exchange. The purported agreement would seek to increase Soviet imports of softwood roundwood to 10 million m^3 per year, a 500 percent increase from current levels. Most sources doubt this can be accomplished. In 1985, the U.S.S.R was contracted to supply 2.2 million m^3 (924 million BF); only 1.8 million m^3 (756 million BF) was actually imported. The Chinese have considered sending their own crews into the U.S.S.R. to harvest timber, but currently this is not a likely prospect.

Canada probably represents the major competitor for the U.S. in China. Canada has increased its exports of softwood lumber to China, accounting for over 85 percent of the import demand. China and Canada have embarked on a number of agreements to improve their trade relationship in recent years, and the Canadian wood products industry has been aggressively marketing in the country. Finally, Chile is supplying about 7 percent of China's imports of roundwood.

As of July 1986, CTIEC hadn't placed any orders for U.S. logs or lumber in over six months. This can be attributed to the $14 billion deficit incurred in 1985 and hence shortage of foreign currency. Imports are now mostly through countertrade agreements, made mostly with the USSR and possibly Chile and Canada. Unless the economy improves in 1987, imports from the U.S. will remain depressed. Wood will be supplied by parties open to creative trade deals.

Tariffs are imposed on wood imports to a varying degree, depending upon the level of conversion. They range from 3 percent for rough sawn logs and cants, to 9 percent for lumber, to 40 percent if tongue-and-grooved or otherwise finished. Most veneers and plywood have tariffs of 20 - 30 percent. The tariffs are geared to encourage importation of raw material rather than finished goods, thereby adding the value domestically. In addition, unpublished tariffs are also applied to a plethora of products including wood products. These product taxes imposed by the Ministry of Finance average about 10 percent. Coupled with the published rates, these taxes make the total tariff obligation among the highest in Asia--higher even than in Japan.

Market Opportunities

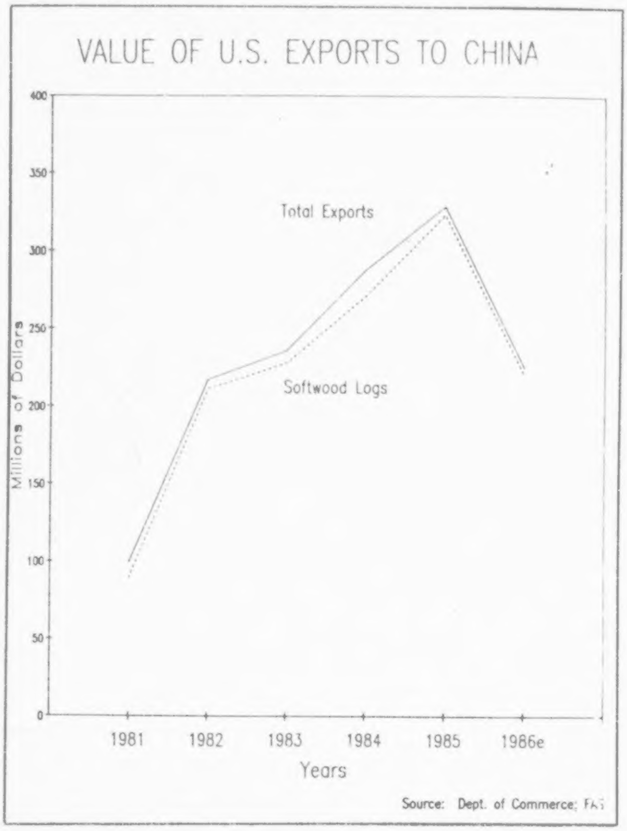
There is little doubt that the Chinese appetite for wood is huge. The primary market remains in the priority areas of China's economic development: capital construction, defense, industrial uses, and transportation. Wood usage patterns differ from the United States and other countries. Construction uses of wood do not tend to be in framing, but in window and door construction, and concrete forming. Scaffolding also is made of lumber. Mining props and packaging account for the next two largest categories of consumption. Most construction is of concrete frame and brick.

Chinese peasant housing utilizes wood in floors, doors and roof structures. This is a vast potential market as peasant homes are being built at the rate of 9-10 million per year.

U.S. Exports to China

China has been the fastest growing customer for U.S. wood products exports. Exports to China have increased from nearly zero in 1979 to over $328 million in 1985, comprised almost entirely of softwood logs, with small volumes of lumber and other products. Exports have fallen dramatically this year in response to the retrenchment by China's leaders (Figure 5). Foreign exchange has been in short supply and, therefore, unavailable for import purchases. This is not believed to be indicative of future trends.

Figure 5:
Purchases from the U.S. have declined this year due to a shortage of foreign exchange.



Source: Dept. of Commerce; FAS

U.S. Industry Efforts

The NFPA study recommends a three-pronged marketing strategy for U.S. industry, with over 20 specific actions. Success in furthering exports to the People's Republic of China will require working within the highly bureaucratic and politically motivated Chinese system. Three overall objectives were identified in the study.

First, bring about the removal of tariff and nontariff barriers to the importation of softwood lumber and plywood.

The U.S. industry must seek lower tariffs, particularly for finished products, in part by demonstrating the importance of importing these products in meeting State objectives. By educating the Chinese about uses and qualities of U.S. products, we can attempt to influence the use of wood in more applications and showing the economic and quality advantages of U.S. products.

Second, target geographic and product markets for acceptance and development of converted products.

This includes developing and promoting sizes and standards currently acceptable to the Chinese. Efforts to this end will be most successful if it can be shown to provinces and collectives that imports of converted products can mean higher profits under China's limited plan for profit potential.

And third, influence wood product acceptance through cooperative technical efforts.

The current lack of product standards and the need for technical assistance provides an opportunity to introduce the Chinese to U.S. sizes, grades, codes, designs and engineered structures. Once again, it is critical to work within the Chinese system. For example, building designs should incorporate indigenous materials as well as imported products.

A Special Challenge

The nature of the Chinese market requires a unified, coordinated long range approach, involving both the U.S. government and the entire spectrum of forest-related industries. NFPA is therefore proposing that a U.S. forest products industry office be established in Bejing to assist the Chinese and provide a direct contact for U.S. producers interested in the Chinese market.

Inroads into China will not come easily or quickly for U.S. industry. Because of the inherently political nature of China's government, time must be taken to build and maintain relationships, the quality and honesty of any relationships being critical. By being patient and adaptive to the Chinese market, the U.S. wood products industry can look forward to a mutually profitable and long term trade relationship.

Copies of the NFPA Study

Copies of the complete NFPA China study are available and free to members of NFPA's International Trade Council. Non-members may obtain copies for $80 (U.S.) or $200 (overseas and Canada). For information contact: Kathleen Mullen (International Trade Council) 202/463-2722. If you would like to order a copy of the study, contact Renee Browne (NFPA Publications Department) 202/463-2733.

A7870-3

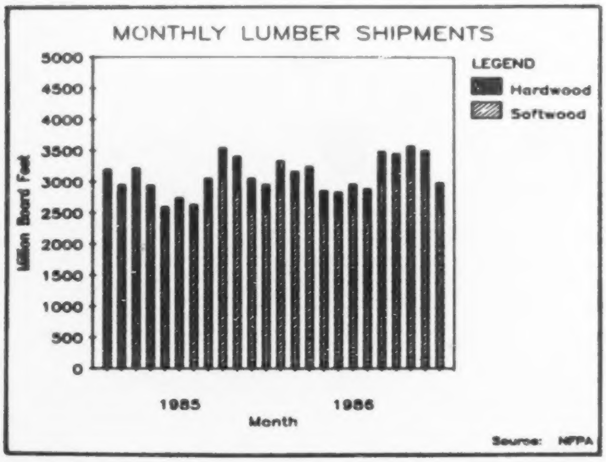
ECONOMICS MONTHLY

MONTHLY STATISTICAL SUPPLEMENT

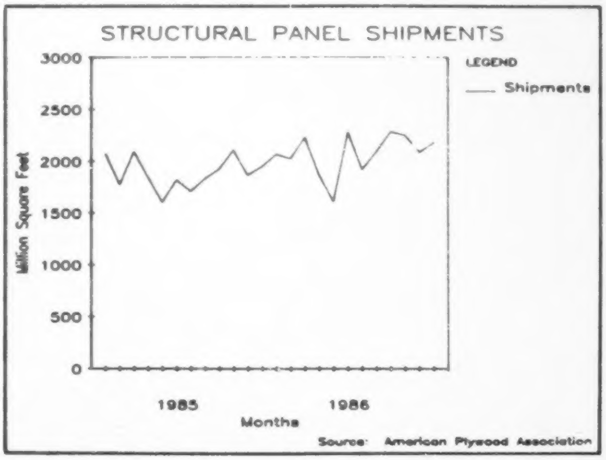
Issued: September 1986

ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION

	JUL. 1986			JULY 31, 1986	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	798	822	845	726	1,874
Douglas Fir Region	572	580	650	522	805
Western Pine Region	872	859	869	467	1,273
California Redwood Region	162	167	150	101	371
Other Softwoods	123	124	128	250	292
TOTAL SOFTWOODS	2,527	2,552	2,642	2,066	4,615
% Change - June 1986	-11.6%	-15.4%	-12.5%	4.6%	-0.5%
% Change - July 1985	-3.3%	0.0%	1.9%	3.6%	-1.7%
HARDWOOD LUMBER					
Southern Hardwood Region	210	207	203	269	877
Appalachian Hardwood Reg.	44	43	43	*	*
Other Hardwoods	180	177	174	197	901
TOTAL HARDWOODS	434	427	420	466	1,778
% Change - June 1986	-26.6%	-25.7%	-25.5%	-1.5%	0.4%
% Change - July 1985	-11.8%	-3.6%	-13.0%	11.0%	5.8%
TOTAL LUMBER	2,961	2,979	3,062	2,532	6,393
% Change - June 1986	-14.2%	-17.1%	-14.5%	3.4%	-0.3%
% Change - July 1985	-4.6%	-0.5%	-0.4%	4.8%	2.1%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	11,255	NA	8,773	4,103
Maple Flooring (Sq. Ft.)	728	1,577	1,593	4,090	1,816
STRUCTURAL PANELS	2,167,098	2,175,117	2,126,278	779,405	404,000
% Change - June 1986	6.9%	4.4%	-4.3%	-5.9%	-1.2%
% Change - July 1985	10.8%	11.8%	9.1%	110.6%	11.2%



Source: NFPA



Source: American Plywood Association

YEAR-TO-DATE INDICATORS

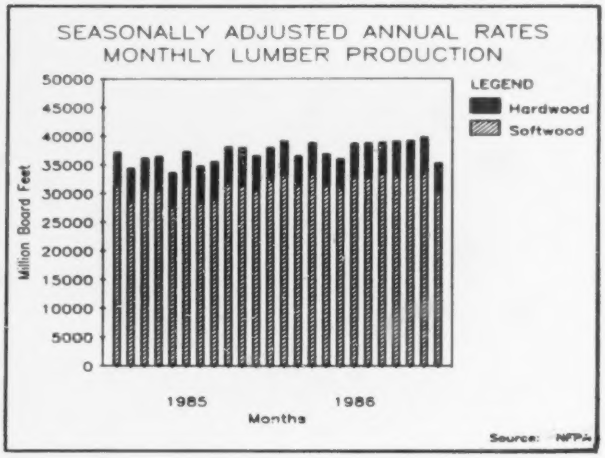
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	7 mos.'86	7 mos.'85	7 mos.'86	7 mos.'85	7 mos.'86	7 mos.'85
	(Million Board Feet)					
TOTAL LUMBER	23,063	6.2%	23,154	7.7%	23,311	7.7%
TOTAL SOFTWOOD	19,563	8.4%	19,713	9.9%	19,796	9.6%
TOTAL HARDWOOD	3,500	-4.7%	3,441	-3.1%	3,515	-1.9%
	(Million Square Feet)					
STRUCTURAL PANELS	15,117	13.6%	15,065	14.3%	14,915	12.3%

SEASONALLY ADJUSTED ANNUAL RATES

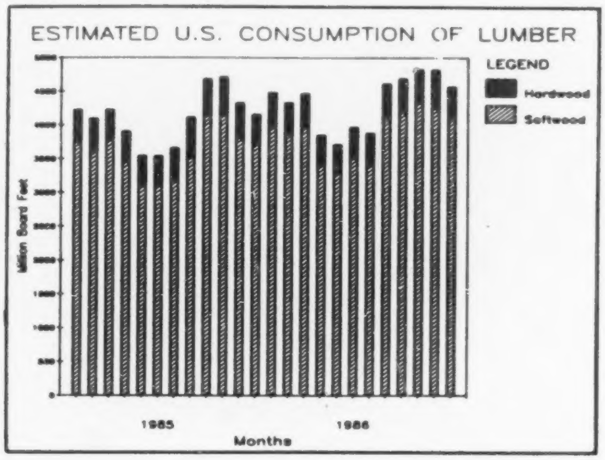
	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	July '86	June '86	July '85	July '86	June '86	July '85
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	9,184	-19.6%	-18.3%	9,419	-17.4%	-12.3%
Douglas Fir	7,176	-13.3%	-12.5%	7,351	-14.7%	-3.7%
Western Pine	10,370	-4.5%	5.0%	10,190	-6.1%	11.3%
Calif. Redwood	1,994	6.0%	5.4%	1,859	4.0%	4.3%
Other Softwoods	1,460	-11.0%	-6.6%	1,476	-13.1%	-2.8%
TOTAL SOFTWOODS	30,184	-11.4%	-7.9%	30,295	-11.8%	-1.7%
TOTAL HARDWOODS	5,109	-24.9%	-11.1%	5,335	-20.0%	-3.9%
TOTAL LUMBER	35,293	-13.7%	-8.4%	35,629	-13.2%	-2.1%

DOMESTIC LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	July '86	June '86	July '85	7 mos.'86	7 mos.'85
	(Million Board Feet)				
Total Consumption	4,393	-8.9%	5.5%	31,220	6.9%
Softwood Consumption	3,978	-6.7%	6.9%	27,837	8.5%
Hardwood Consumption	416	-25.8%	-6.3%	3,383	-4.9%



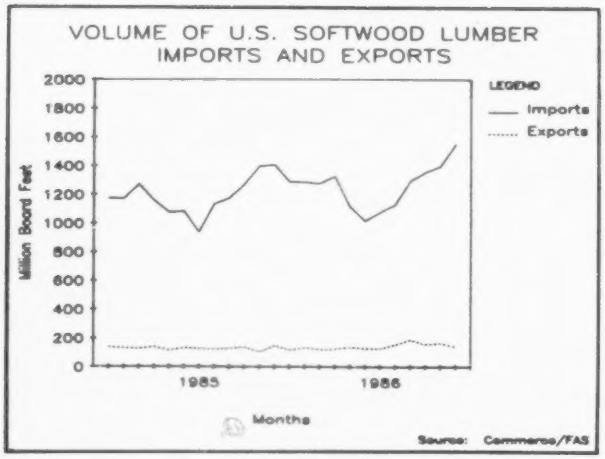
Source: NFPA



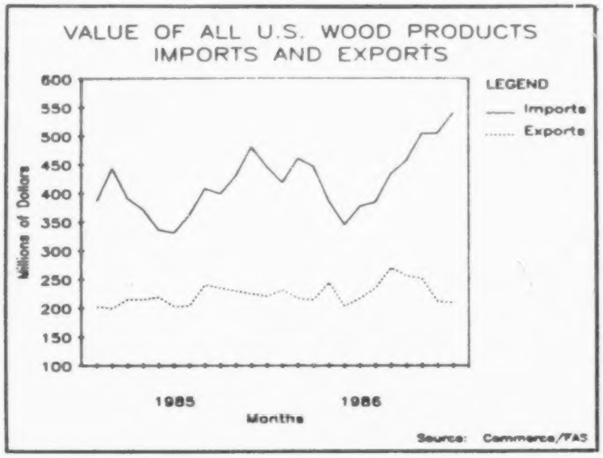
INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE			
		July '86	7 mo. 1986	% Change From June '86	% Change From 7 mo. 1985	July '86	7 mo. 1986	% Change From June '86	% Change From 7 mo. 1985
EXPORTS									
SOFTWOOD LUMBER	MMBF	138.2	1,066.9	2.5%	21.6%	45,340	354,838	-6.5%	22.8%
To Canada	MMBF	29.8	208.6	6.9%	20.7%	7,320	51,572	4.1%	18.7%
SOFTWOOD LOGS	MMBF	223.9	1,898.2	-3.3%	-13.0%	73,569	613,396	-7.7%	-10.7%
SOFTWOOD PLYWOOD	MMSF 3/8"	34.4	332.6	49.0%	76.1%	7,560	71,847	38.6%	62.3%
HARDWOOD LUMBER	MMBF	38.5	273.3	-10.1%	19.8%	26,211	187,922	-7.9%	32.3%
HARDWOOD LOGS	MMBF	5.0	70.3	-20.8%	-10.1%	4,519	64,948	-17.2%	3.2%
HARDWOOD VENEER	MMSFsurf	111.0	575.1	22.9%	28.1%	6,676	44,345	7.8%	23.4%
PARTICLEBOARD	MMSF 3/4"	12.4	93.3	-20.9%	52.8%	2,534	18,469	-20.5%	48.5%
ALL OTHER		NA	NA	NA	NA	40,969	285,177	23.4%	4.0%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	208,691	1,647,775	-1.1%	6.0%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,564.1	9,191.2	13.4%	6.9%	334,349	1,914,408	10.3%	13.2%
From Canada	MMBF	1,549.5	9,113.0	13.5%	6.5%	330,875	1,896,739	10.5%	12.7%
SOFTWOOD LOGS	MMBF	5.6	25.6	16.2%	-28.5%	692	2,950	-3.9%	-70.3%
SOFTWOOD PLYWOOD	MMSF 3/8"	10.0	79.4	-25.3%	63.3%	2,727	20,747	-12.9%	70.9%
HARDWOOD LUMBER	MMBF	27.5	212.0	-1.0%	-8.0%	13,858	100,433	-6.2%	-12.4%
HARDWOOD LOGS	MMBF	2.9	13.8	2.8%	15.3%	527	2,424	34.1%	10.3%
HARDWOOD VENEER	MMSFsurf	138.5	951.4	2.1%	16.9%	9,898	67,248	-2.1%	14.2%
HARDWOOD PLYWOOD	MMSF 3/8"	319.1	2,330.4	-2.2%	9.5%	39,315	286,784	-2.9%	6.6%
HARDBOARD	MMSFsurf	72.8	543.9	-21.9%	29.9%	4,974	34,482	-5.9%	13.1%
PARTICLEBOARD	MSF 3/4"	105.7	641.0	1.5%	12.9%	14,756	85,969	5.6%	12.0%
ALL OTHER		NA	NA	NA	NA	118,028	681,860	5.7%	16.0%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	539,415	3,199,544	7.0%	12.1%

Note: Volume total is not possible because the products are in different units of measure.
Note: Particleboard imports include OSB/Waferboard.


VOLUME OF U.S. SOFTWOOD LUMBER IMPORTS AND EXPORTS

Source: Commerce/FAS


VALUE OF ALL U.S. WOOD PRODUCTS IMPORTS AND EXPORTS

Source: Commerce/FAS

VALUE OF NEW CONSTRUCTION

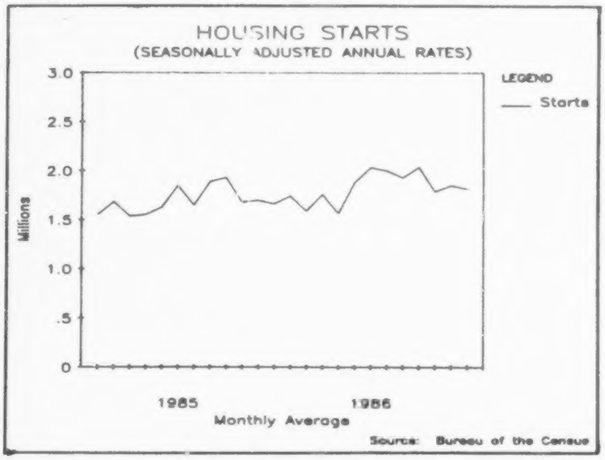
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	---% Change From---		Latest Period Available	% Change From
	July '86	June '86	July '85	7 mo. '86	7 mo. '85
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	34.6	0.0%	10.2%	205.2	8.8%
Private	27.5	-1.4%	10.3%	167.8	7.8%
Residential	16.3	-2.4%	19.6%	93.5	13.4%
Nonresidential & Other	11.2	0.0%	-0.9%	74.3	1.4%
Public	7.2	7.5%	11.5%	37.4	13.8%

HOUSING STARTS

	July '86	June '86	July '85	7 mo. '86	7 mo. '85
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	175.6	-4.4%	9.1%	1,108.0	8.9%
New Private Starts	175.4	-4.5%	9.1%	1,107.6	9.0%
Seas. Adj. Annual Rate	1815	-2.0%	9.1%		
One-Family Housing Starts	116.2	-7.0%	10.0%	719.7	12.7%
Proportion of Total	66.2%			65.0%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	20,300	-5.1%	-16.5%	145,200	-12.5%

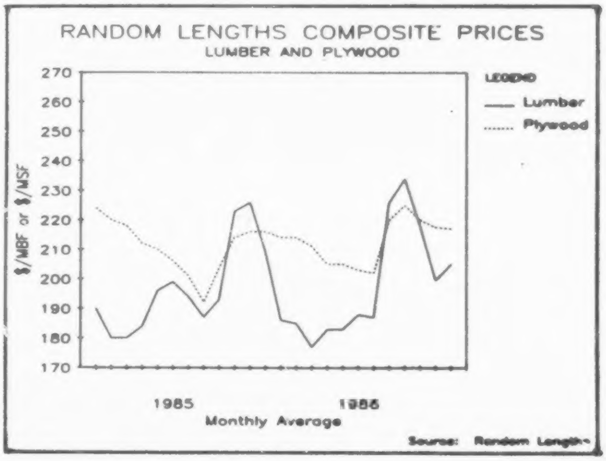
INDUSTRY EMPLOYMENT

	July '86	----% Change From---	
		June '86	July '85
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	100,122	0.3%	2.5%
All Manufacturing Industries	19,116	-0.1%	-1.2%
Lumber and Wood Products	720	-0.1%	3.3%
Furniture and Fixtures	498	0.4%	0.8%



HOUSING STARTS
(SEASONALLY ADJUSTED ANNUAL RATES)

Source: Bureau of the Census



RANDOM LENGTHS COMPOSITE PRICES
LUMBER AND PLYWOOD

Source: Random Length